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EUGENICS RECORD OFFICE—MEMOIR No. 1

THE HILL FOLK

REPORT ON
A RURAL COMMUNITY OF HEREDITARY DEFECTIVES

BY

FLORENCE H. DANIELSON, M.A.

FIELD WORKER, EUGENICS RECORD OFFICE

AND

CHARLES B. DAVENPORT

DEPARTMENT OF EXPERIMENTAL EVOLUTION, CARNEGIE INSTITUTION OF WASHINGTON

WITH THREE FOLDED CHARTS AND FOUR TEXT FIGURES

COLD SPRING HARBOR, LONG ISLAND, N. Y.

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PREFACE.

This memoir is the first of a projected series which is intended to embody some of the more extended researches of the Eugenics Record Office, especially such as, on account of extensive pedigree charts, require a page of large size. Against the inconvenience of the quarto size has to be balanced the very practical necessity of a large surface to show relationships in a great network.

The present memoir is a study of a rural community of a sort familiar to sociologists in the work of Dugdale and of McCulloch in this country. The work began in connection with studies on the pedigree of some inmates of the Monson State Hospital, at Palmer, Mass. Miss Danielson was assigned by the Eugenics Record Office to work at that institution under the direction of its Superintendent, Dr. Everett Flood. Dr. Flood gave Miss Danielson every facility for prosecuting this inquiry, and took the broad stand that it is quite as desirable to make an extensive study of all the connections of an epileptic subject as to make numerous brief pedigrees of a much larger number of inmates. This memoir is the product of such an extended inquiry. The thanks of the Record Office, and, I am sure, of all students of human heredity and of sociologists, are gratefully offered to Dr. Flood, as well as to the trustees of the Hospital, of whom it may not be invidious particularly to mention Dr. W. N. Bullard, chairman of the Board.

The primary value of this memoir is, it must be confessed, to the sociologist rather than to the student of inheritance of human traits. Our field work of the first year has hardly risen to the point of analysis required for a study of heredity. This work will take much more time and will come later. But the sociological importance is clear. We are dealing with a rural community such as can be found in nearly if not quite every county in the older states of the union, in which nearly all of the people belong to the vague class of the "feble-minded"—the incapable. The individuals vary much in capacity, a result which follows from the complexity of their germ plasm. Some have capacities that can be developed under proper conditions, but for many more even the best of environmental conditions can do little. They must remain a drag on our civilization; a condition for which not they, but society, is responsible. It is to be hoped that a presentation of the facts will hasten the so much desired control by society of the reproduction of the grossly defective.

All of the field work on which the report is based, the preparation of the charts, and the writing of the major portion of the text, including all of the tabular matter and the Appendix are the work of Miss Danielson. Grateful acknowledgment is made of the financial assistance of Mr. John D. Rockefeller in the publication of this report. The expense of the study was borne in part by the Monson State Hospital and in part by Mrs. E. H. Harriman.

C. B. DAVENPORT.

THE HILL FOLK

I. INTRODUCTION

The following report is the result of an investigation of two family trees in a small Massachusetts town. It aims to show how much crime, misery and expense may result from the union of two defective individuals—how a large number of the present court frequenters, paupers and town nuisances are connected by a significant network of relationship. It includes a discussion of the undesirable traits in the light of the Mendelian analysis. It presents some observations concerning the relation of heredity and environment, based on their effects upon the children. While it is not an exhaustive study of all the ramifications of even these two families and their consorts, it may be sufficient to throw some light on the vexed question of the prevention of feeble-minded, degenerate individuals, as a humane and economical state policy.

In the fall of 1910 a field worker from the Eugenics Record Office was placed in the employ of a state institution to study the inheritance of certain traits. One of the cases which was investigated led to a community where feeble-mindedness, immorality, and alcoholism were rife. An investigation of the group of families which showed these traits followed. It brought to light the fact that all these families were connected by marriage, some of them by consanguineous marriages, and that practically all of them could be traced back to one of two original sources. The economic and educational influences in this rural district have not been abnormal, but from the nucleus of these two families has developed a shiftless, weak-minded element which is notorious in the county.

The town in question lies in a fertile river valley among the New England hills. It is on the direct railway line between two prosperous cities. East and west of it are more hilly, less productive towns. Its present population is about 2,000. Most of the people are industrious, intelligent farmers. A lime kiln and a marble quarry are the only industries of importance. In summer the population is nearly doubled by city boarders.

Into one corner of this attractive town there came, about 1800, a shiftless basket maker. He was possibly of French origin, but migrated more directly from the western hill region. About the same time an Englishman, also from the western hills, bought a small farm in the least fertile part of the town. The progeny of these two men, old Neil Rasp,* and the Englishman, Nuke, have sifted through the town and beyond it. Everywhere they have made desolate, alcoholic homes which have furnished State wards for over fifty years, and have required town aid for a longer time.

*The few names which are used in the description of this community are fictitious. The local setting and the families and all the other details actually exist, but for obvious reasons imaginary names are in every case substituted for the real ones.

Enough of the families still live in the original neighborhood so that, although they occupy tenant houses of respectable farmers, for they own no land now, the district of "The Hill" is spoken of slurringly. Where the children have scattered to neighboring towns, they do not remain long enough to secure a residence and are consequently referred back to the original town when they require outside aid. As the younger generations have grown up, they have, almost without exception, married into American families of the same low mental grade, so that "The Hill" people are linked by their consorts to a similar degenerate family a hundred miles away.

The attitude of the townspeople is that of exasperated neighbors. They have lived beside these troublesome paupers for so long that they are too disgusted with them, and too accustomed to the situation, to realize the necessity for aggressive work upon it. A few of them realize that hard cider is a large factor in the cause of their neighbors' poverty, but more of them, apparently ignoring the fact, keep it on tap free or sell it. This poor class of people are left largely to themselves until they need town aid, or some member becomes so drunk that he disturbs the peace, or some girl becomes pregnant and has to be taken to an institution. About once every eight or ten years, a state agent is informed of the conditions, and four or five children are removed from the families. Then the father and mother find that their financial problems are relieved for the time and settle down to raise another family.

A few of the men and some of the women have soldier's or widow's pensions and state aid, but most of them work, when they do work, as wood choppers or farm laborers. Most of their wages go for hard cider or, if handed to the wives, are spent in other equally foolish ways. They move frequently from one shanty or tumbled down house to another. So long as food and a small amount of clothing are furnished by some means, they live in bovine contentment.

From the biological standpoint, it is interesting to note that mental defect manifests itself in one branch of the pedigree by one trait and in another branch by quite a different one. Thus, in one line alcoholism is universal among the men; their male cousins in another line are fairly temperate, plodding workers, but the women are immoral. Another branch shows all the men to be criminal along sexual lines, while a cousin who married into a more industrious family has descendants who are a little more respectable. These people have not been subjected to the social influences of a city or even of a large town, so that the traits which they show have been less modified by a powerful social environment than those of urban dwellers.

Even under these conditions, a study of their germ-plasm is full of complexities. One can readily conceive of the difficulties of analyzing an individual's characteristics and placing him concisely in a certain class, even after a prolonged acquaintance. The problem that a field worker meets is to analyze each person in the pedigree in respect to his mental and moral traits from a brief acquaintance and from a comparison of the descriptions of others. After all the evidence from personal visits, interviews with relatives, physicians, town officials, and reliable neighbors, and facts from court and town records have been collected, it is, even then, difficult to represent these characteristics

exactly by the standard symbols which are used for the biological study of inherited traits. The distinction between an ignorant person who has normal mental ability and a high grade feeble-minded one who has not, is often as impossible to make as that between medium and low grade feeble-mindedness. The term normal, therefore, as it is used in these descriptions is often applied to a person on the borderline, so that only a few of the "normals" are clear cut, ordinary persons, but most of them fall into that category from a lack of sure evidence of any striking censurable defect. So in this report, hard and fast lines are not drawn, but the symbols which most closely represent the character are placed on the chart and the description supplies more detailed information.

II. EXPLANATION OF CHARTS

The scheme which has been adopted to represent the descent from the common ancestors in this pedigree is that of a wheel. The lines which diverge from the center to the first circle indicate the children of the original couple. The descendants of this second generation in turn form the second circle, and the lines which indicate their descent diverge from the line of union between their parents. Considering the common ancestor as the first generation, the generations are numbered with Roman numerals. The individuals in each generation are numbered by Arabic figures, independently of other generations and are referred to in the descriptions by the generation number and their consecutive number in that generation, as I 2 or III 16. When an individual appears twice on the chart through a cousin marriage, he is always designated by the number which indicates his descent.

A key of the symbols and letters accompanies each chart, but a word of explanation in regard to the use of F and Sx is due. A distinction has been made, in the grades of feeble-mindedness, between high and low. The former term, represented by the F in a white square or circle, refers to those persons who support themselves in a meager way, but who lack ambition, self-control, common sense and the ordinary mental and moral capacity for differentiating right and wrong; the latter, represented by the solid black square or circle with the F in white, refers to those who are not capable of self-support, and who are a special menace to the community from their lack of all mental and moral stamina.

The other symbol which may require explanation is Sx, which refers to a lack of self-control that takes the form of illicit relations with the opposite sex. This is used to indicate a distinct trait rather than the mere breach of social law. It refers to those persons in whom the sex impulse and self-control are not balanced, but in whom the former is relatively stronger; in such persons, then, the sex impulse works unhindered. Not all persons who have made illegitimate unions are marked Sx on the charts, but only those where this trait seems, from the history of the case, to be the direct cause of the illegitimacy.

The same general scheme has been used on each of the three charts. The first one represents the Rasp family, which is connected by marriage to the Nuke family, which in turn is plotted on Chart B. Chart C represents the descendants of a branch of the

Rasp family, viz., a brother of the original Neil Rasp, I 1, on Chart A. It also includes a family which is closely connected by marriages with both the preceding pedigrees.

III. GENERAL SURVEY OF THE STRAINS STUDIED AND THEIR TRAITS

A brief survey of the charts will be sufficient to show the trend of the characteristics of each group of descendants from the original ancestors. On Chart A, the larger of the two principal families originated from a very alcoholic, shiftless man and his feeble-minded wife. All of their five children were feeble-minded to a greater or less extent and produced offspring who vary widely in their characteristics of feeble-mindedness.

The children and grandchildren of II 1 are shiftless and deficient in a general way, and in some instances have uncontrolled sexual instincts. The daughter, II 1, married a man who was her inferior in mental ability and five of their six children were feeble-minded; the sixth died at nineteen years of age. One son, who married an immoral woman and had a family of eleven children, was imprisoned for incest with his daughter, and two of his children show uncontrolled sexual desires. All of them are feeble-minded and some of his grandchildren are also. One daughter, III 7, had only one child by an alcoholic man, and this child was not particularly defective. Another daughter, III 9, kept a house of ill-fame. She had three children, one of whom is very shiftless and feeble-minded, another one has migraine, but appears fairly intelligent, and the third one has not been located. The last son, II 11, married his own cousin and had three children, viz., an imbecile daughter and two sons, one alcoholic, and one epileptic.

The descendants from the most feeble-minded daughter in the second generation, II 4, are characterized by abnormal sex instincts, some feeble-mindedness, and, where a better stock has been introduced through outmarriage, by some normal traits. This daughter married an extremely alcoholic man and four of her seven children are criminal, three of them having committed serious crimes against sex. One daughter, III 12, married her own cousin; she also had a mulatto child, and finally two illegitimate children by another cousin. Another daughter is immoral and still another is a pronounced neurasthenic. Some of the grandchildren also show feeble-mindedness and uncontrolled sexual instincts, while others who have descended from a union of this stock with a normal strain, seem to be normal or only neurotic.

The offspring of the only son, II 6, are extremely alcoholic, more alcoholic than any other branch of the pedigree. They are also shiftless and consequently very poor. They exhibit a high grade of feeble-mindedness and some normal traits. This son was married twice. Both of the alcoholic sons by his first wife have large families of ten and eleven children. Most of these children are feeble-minded, and some of them have been removed from home on the grounds of neglect. The second wife was a high-grade feeble-minded woman with a cleft palate. Six of their eight children are feeble-minded, one of them is a cretin, and another has a cleft palate. Two girls are fairly normal, one married a normal man and has normal children; the other married a feeble-minded man with a hare-lip and has some normal and some feeble-minded children.

The descendants from the third daughter, II 8, who married into a normal strain

show a very high grade of feeble-mindedness. One son committed rape. There were four sons but only two of them have families of any size; and one of these married a cousin. Many of the third generation are borderline cases of feeble-mindedness.

The offspring of the fourth daughter, II 10, who also married into a normal family, show some normal traits and also high-grade feeble-mindedness and a little alcoholism. Three of the eight children who grew to maturity are normal. One of the feeble-minded sons, III 47, was imprisoned for attempted rape, and afterwards married his cousin by whom he had five feeble-minded children. This family is the lowest grade mentally, of any of the third generation, though several others are high-grade feeble-minded families.

The second family, whose pedigree is plotted on Chart B, is not characterized by much alcoholism, but rather by shiftlessness and a stolid dullness. There are both high and low grades of feeble-mindedness, epilepsy, and some normal traits. The original ancestors were probably a little more energetic than the originators of the above pedigree, for they owned a small farm. The father was not very intelligent, however, and the mother very neurotic. All of their eleven children of whom anything is known were feeble-minded or neurotic; five of them married and had families.

The descendants of II 1 are the most defective branch of this pedigree and form a third of the individuals on this chart. II 1 married a feeble-minded man by whom she had seven defective children and one who is of average intelligence. The latter had no children but her six feeble-minded brothers and sisters who married produced twenty-nine children for the next generation. Four of these were comparatively normal, two died in infancy, and the remaining twenty-three vary in intelligence from the grade of a moron to an epileptic imbecile. The fraternity to which this imbecile belongs (children of III 14 and 15) is noteworthy on account of its number of epileptics and dependents. Four of the thirteen children have had epilepsy and ten have been taken away from the parents because they were neglected. The one child, III 3, of II 1 and 2 who did not marry, is extremely feeble-minded and has been in prison for arson. His sister, III 11, is the individual who married into the family plotted on Chart A and appears there as the wife of III 1 and the mother of a large defective family.

Children of II 9 and her alcoholic husband show alcoholism, epilepsy, and some normal traits. Six of her children died in infancy. The two who have epilepsy are able to support themselves. This is the most respectable fraternity on this chart.

Nothing is known of the illegitimate children of II 12, but four of her five legitimate children by a feeble-minded, choreic man lived to maturity and are typical high grade feeble-minded persons,—shiftless, easily influenced, dull and alcoholic. One son married, and had two hydrocephalic twins who died; and one daughter has ten children all but one of whom are high-grade feeble-minded individuals. Those of school age are very backward in their studies. The one daughter who is superior to her brothers and sisters married, and has a daughter who has married a respectable man and has a good home.

The descendants from II 17, who married an eccentric man, show insanity, eccentricity, and feeble-mindedness in the few cases of which data were obtainable. One son

murdered his uncle and has been sent to the Hospital for Criminally Insane. The feeble-minded son, III 61, has eight children, most of whom show signs of mental deficiency.

The high-grade feeble-minded daughter, II 19, had but one illegitimate and one legitimate child. The former is epileptic, but has no children. The husband of II 19 is also epileptic. Their one son, however, has had no attacks of epilepsy, but is a feeble-minded neurasthenic. He has married a feeble-minded woman and has three deficient children.

On Chart C, I 1 is the brother of the originator of Chart A, while the other half of the wheel is made up of a family into which many of the previous families have married. The traits which are most prominent here are alcoholism, laziness, and some feeble-mindedness. As a whole, the families on Chart C are a little more intelligent than those on the other two charts.

From the one son of the alcoholic ancestor, I 1, there were six feeble-minded or alcoholic children, one fairly normal son, and one daughter who died in infancy. Four persons in the next generation are very feeble-minded, IV 1, IV 11, IV 15, IV 38. The others are high-grade or normal. Two sons, III 7 and III 9, have large families of ten and twelve children. Two older members of one fraternity have shown an inability to control sexual desires. The school children from both of these families lack attention and mental energy.

The children of I 3 and 4 were extremely shiftless. Two of them were very alcoholic. II 3, one of these, married a woman who became insane late in life. They had eight children, one of whom is insane, three alcoholic, one shiftless and feeble-minded, one normal, and the other two are unknown. The normal girl married her own cousin and has an alcoholic son and an imbecile daughter.

The daughter, II 8, who married a high-grade feeble-minded man had two normal and two alcoholic children.

From II 12, a feeble-minded, shiftless man, has sprung an indolent group of feeble-minded persons, with the one exception of a daughter who has moved to a distant town and who seems to be normal. The second generation from II 12, the school children, are lazy and unable to progress in their studies.

The conclusion of this brief survey, then, must be that the second and third generations from a union of mentally defective individuals show an accumulation and multiplication of bad traits, even though a few normal persons also appear from such unions. It is also evident that certain traits tend to follow certain lines of descent, so that after one generation, related families may each have a different characteristic trait. The outer circle on each chart contains a comparatively large number of individuals designated as normal. These are the undeveloped children who will be a constantly changing factor for several years. So the increase in the number of so called normals in the growing generation cannot be taken offhand for evidence that the old stock is improving. The fact that these children have not yet displayed all their potentialities is one that must be considered.

IV. INHERITANCE

In view of the difficulties already pointed out in analyzing individuals accurately, the study of the inheritance of their traits can be only suggestive. It may show tendencies where it cannot afford clean-cut laws. Let us assume for the moment that feeble-mindedness is a unit, and acts as a simple recessive to normality. Here we are confronted by the difficulty that in "feeble-mindedness" as the term is commonly used, several degrees are recognized. We have recognized two such degrees and called them "high-grade feeble-mindedness," and "low-grade feeble mindedness." This gives us three grades in an unanalytical series; viz., normality, high-grade feeble-mindedness, low-grade feeble-mindedness. Let us test the hypotheses that feeble-mindedness of any grade is "recessive" to normality; and that in like manner low-grade feeble-mindedness is recessive to high-grade feeble-mindedness and normality.

To aid in this test we may compare the proportion of defectives arising from each of the six theoretical matings. In the first hypothesis, according to the formulæ of these matings "N" stands for normality and "n" for the absence of normality (or high-grade and low-grade feeble-mindedness massed together). Now the six matings are:

Mating.	Percent of Defectives.		Mating.	Percent of Defectives.	
	Expected.	Found.		Expected.	Found.
1. NN × NN	0	0	4. Nn × Nn	25%	33.2%
2. NN × Nn	0	0	5. Nn × nn	50%	53.6%
3. NN × nn	0	37.5%	6. nn × nn	100%	77.3%

Two letters are used to represent the constitution of the germ cells of each parent, because these germ cells may be of two kinds as well as all alike. Opposite each mating is given the percentage of offspring, who, on typical "Mendelian" expectation should be "defective" in high or low degree, and also the actual percentage found. The results are plotted in Fig. 1 in a graphic form for a comparative study. These numbers are in agreement in matings 1 and 2 only; deviate widely in mating 3, and for the other matings run fairly close. In respect to mating 1, the accord with expectation is largely without significance, because just the absence of defectives from two normal parents is the main criterion for classifying in mating 1. In mating 6, the case of nulliplex by nulliplex,—hypothetically a pure recessive strain,—77.3 per cent. of the children are defective where 100 per cent. is expected. This large majority on the side where all of the offspring were expected indicates that the tendency of nulliplex by nulliplex is to reproduce itself. The 22.7 per cent. discrepancy requires some further explanation. It is evident that the hypothesis which includes all mental defects in one category does not fit the Mendelian expectation very closely.

A more careful analysis of some of the matings in case 6 may throw some light on the reasons for this misfit. The children who are classed as normal in the cases of IV 4 and 5, IV 33 and consort, III 27 and consort, III 39 and consort, III 46 and consort, on Chart A and IV 27 and 28 on Chart B, are still so young and undeveloped that their traits now exhibited are not a reliable index of their true potentialities, but, apart from age,

the results indicate that we are not dealing with a simple Mendelian phenomenon, simply because we are not making a study of one trait at a time. Take, for instance, the cases of those adults of feeble-minded parentage, who are plainly much superior to their parents and to their defective brothers and sisters. Families of III 28 and 29, II 6 and 7

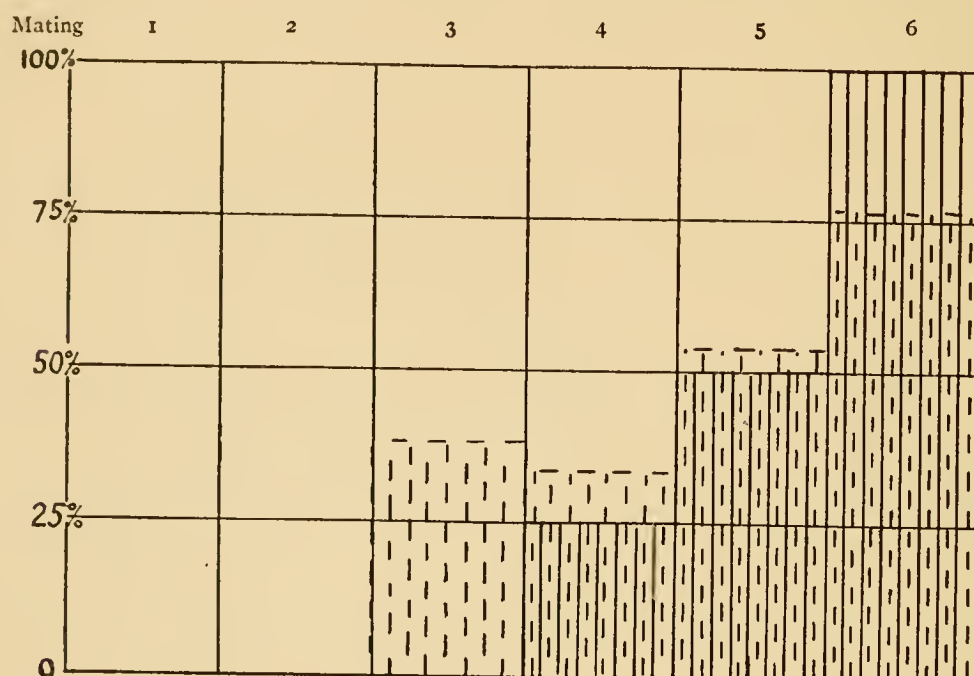


FIG. 1.

on Chart A, and II 1 and 2, III 14 and 15 and II 12 and 13 on Chart B show such variations.

In the family of III 28 and 29 on Chart A, IV 76 is a daughter about seventeen years old. Her filthy home shows the shiftless, untidy habits of both parents. The father is rough and boisterous and often ugly; his wife is more quiet. In contrast to her parents and her home, this girl is neat about her person, comparatively quiet in her manners, and responds intelligently in general conversation. She had to leave school on account of severe heart trouble, but was interested enough in her lessons to attempt to study at home. Conditions in the home, however, prevented her from accomplishing much and she soon gave up the attempt. Two children who died, IV 75 and 77, are reported to have been very like her, while all the rest of the family are more or less feeble-minded. In the offspring of II 6 and 7, both of whom were decidedly deficient mentally, there are two practically normal girls. One of them, III 34, is a borderline case, but the other is more definitely normal. She has a comfortable home which she keeps fairly neat. Her conversation on her husband's business, on school matters and on her children disclosed the ideals and ambitions of a woman of ordinary intelligence. In the same fraternity are alcoholism, feeble-mindedness, and cretinism.

One daughter of II 1 and 2 on Chart B presents a decided contrast to her parents and her numerous feeble-minded brothers and sisters. None of the latter have risen above the

grade of shiftless, unintelligent laborers and loafers, such as their parents were. She was associated with them in childhood and later was engaged in domestic service or a similar employment. She married a normal, industrious man who was able to furnish her with a good home. She is comparatively energetic, ambitious and neat. As a member of a local church, she mingles in its society and shows the ability and intelligence of an ordinary person. In her brother's family, III 14 and 15, there are two daughters in a fraternity of thirteen, who are capable of maintaining the usual standards of life. These girls were removed from home when eight and ten years old respectively. Their youth was spent in domestic service. Now, one of them is somewhat shiftless in her housekeeping, but aside from this carelessness she shows no marked defects. She responds to the interests and duties of her station in life as well as the average woman. Her sister is more careful of her home and has taken care of an elderly invalid, besides her own family. Doubtless an improved environment has played a part in the success of these two sisters, but others in the same fraternity who had had similar advantages (see IV 37 and IV 39) have been unable to react to them, and still exhibit evidences of feeble-mindedness, such as untrustworthiness, poor judgment and immoral tendencies.

These facts raise the question whether an analysis on the basis of high and low grades of feeble-mindedness is not too broad. We may find one case of feeble-mindedness wherein the individual is cruel, and keen in the pursuit of mischief, but unable to learn, and another case in which he is kind and learns quite readily, but is shiftless and devoid of judgment and the ability to apply his knowledge. Such instances seem to indicate that these different traits which characterize the types of feeble-mindedness may furnish a truer basis for a theory of inheritance. One combination of certain traits presents one sort of feeble-mindedness, and another combination another sort. Working on this hypothesis, the possibility of obtaining from two parents whose defects are due to different traits (or the lack of them) a child who may be superior to either parent as a member of society, is to be expected. For instance, if such traits follow the Mendelian principle, a man who is industrious but apathetic and unable to connect cause and effect (*i. e.*, lacks good judgment) so that he cannot compete in business, married to a shiftless woman who is keen and shrewd, even to a vice, may have offspring in which the father's industry and the mother's mental ability are combined so that they may be superior to either parent. For if the feeble-mindedness of the father's type and that of the mother's type are gametically independent and each recessive to the normal condition, they may produce normal children according to the following formula.

Trait.	Gametic Description of Father.	Gametic Description of Mother.	Gametic Description of Offspring.	Somatic Description of Offspring.
Judgment (J)	jj	JJ	all Jj	All persons have good judgment. All are industrious.
Industry (I)	II	ii	all Ii	

The make-up of the father's germ cells (gametes) in respect to judgment is nulliplex, and is expressed by jj, while the gametic make-up of the mother in respect to the same

trait may be duplex, since she exhibits the dominant conditions, and is expressed by JJ. In respect to industry, the father's gametic make-up may be II and the mother's ii. The children of this union, in respect to the first trait, would all appear normal and gametically would be Jj, or simplex, for that type of feeble-mindedness. In a similar manner all the children would be normal in respect to industry, but gametically they would be simplex Ii.

Again, using the same union as an illustration, if the father in addition to his nulliplex condition for judgment were also simplex in regard to industry, one half of the children would be nulliplex for the latter trait, as is shown by the following formula.

Trait.	Gametic Description of Father.	Gametic Description of Mother.	Gametic Description of Offspring.	Somatic Description of Offspring.
Judgment	jj	JJ	100% Jj	All persons have good judgment.
Industry	Ii	ii	50% Ii 50% ii	50% are also industrious but 50% are shiftless.

In a similar manner, it can be shown that if the mother were also simplex in regard to judgment, one half of the children would exhibit that type of feeble-mindedness. In fact it is probable that a person who shows one type of feeble-mindedness is simplex, rather than duplex, in respect to other types. For the unwritten but powerful social law which prevents one stratum of society from marrying into another forces one type

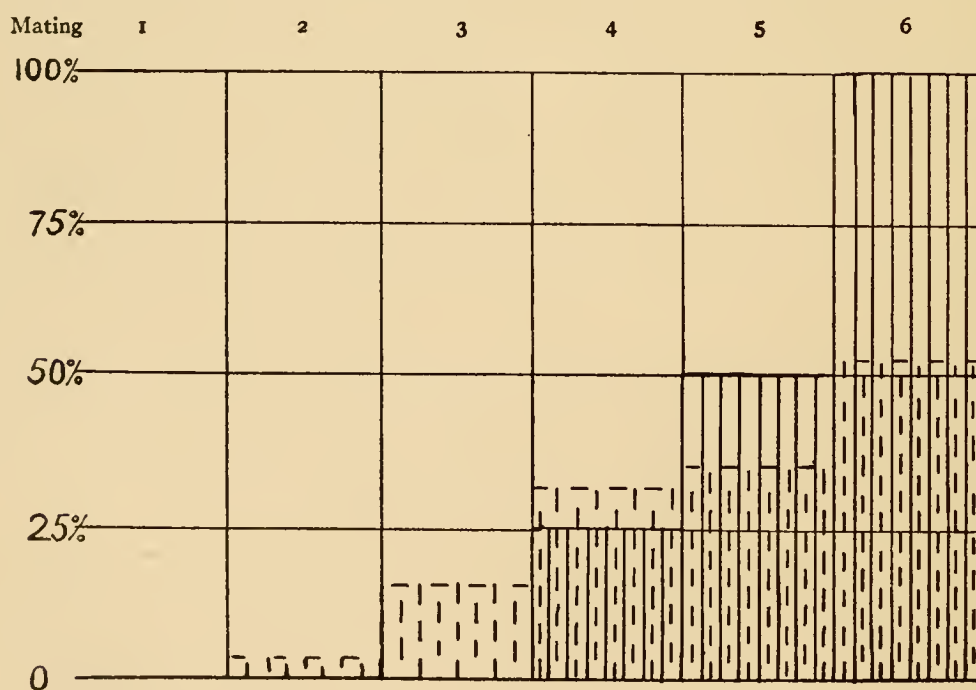


FIG. 2.

of feeble-mindedness to mate with another. In a few generations, then, the offspring may be feeble-minded in several different ways, we may get many defective children and a

few normal ones. The large percentage of defective children from the mating of defectives with defectives points to such an accumulation of undesirable traits, rather than any dispersion of them. The further study, therefore, of both abnormal and normal characteristics should proceed on the basis of the elementary trait or "unit character."

Again, when we test the hypothesis that low-grade feeble-mindedness is recessive to high-grade feeble-mindedness, we fail even more strikingly to fulfill expectation in matings 5 and 6. High-grade feeble-mindedness in this case is massed with normality and included under the symbol "N", while "n" refers only to low-grade feeble-mindedness. The graphic form of the correlation between the expected and observed results is plotted in Fig. 2.

Matings.	Percent of Defectives.		Matings.	Percent of Defectives.	
	Expected.	Found.		Expected.	Found.
1. NN × NN	0	0	4. Nn × Nn	25%	30.7%
2. NN × Nn	0	2.7%	5. Nn × nn	50%	33.7%
3. NN × nn	0	14.3%	6. nn × nn	100%	52.6%

The reason for this more striking failure to meet expectation is that, having defined our recessive or defective class even more strictly, a still larger proportion of offspring show no such defectiveness, just because the parents again do not lack similar traits.

The analysis of the data, then, gives statistical support to the conclusion abundantly justified from numerous other considerations, that feeble-mindedness is no elementary trait, but is a legal or sociological, rather than a biological term. Feeble-mindedness is due to the absence, now of one set of traits, now of quite a different set. Only when both parents lack one or more of the same traits do the children all lack the traits. So, if the traits lacking in both parents are socially important the children all lack socially important traits, *i. e.*, are feeble-minded. If, on the other hand, the two parents lack different socially significant traits, so that each parent brings into the combination the traits that the other lacks, all of the children may be without serious lack and all pass for "normal". However, inasmuch as many of the traits of such "normals" are derived from one side of the house only (are simplex), they may, on mating persons of like origin with themselves, produce obviously defective offspring.

V. MARRIAGE SELECTION

The large majority of the matings which are represented in this report are of defectives with defectives. A few of those who have drifted into a different part of the country have married persons of a higher degree of intelligence, but the most of such wanderers have, even in a new location, found mates who were about their equal in intelligence and ambition.

In a rural district which supports such a class of semi-paupers as has been described the social advantages which come to them are meagre and narrow. After a long day's work on the farm or in the kitchen, the farm laborer and kitchen girl find their recreation in an evening of gossip, for they know everyone in the neighborhood. They may live

near enough to their homes to go there at night. If such is the case, one dirty kitchen may hold half a dozen men and the women of the house. They smoke and drink cider and pass rude jests together and in the end sometimes fight. Away from home, they are ostracized by the other social classes. They occasionally have a dance which will bring together many of the same class from neighboring towns.

Under these circumstances it is not surprising that early marriages are the rule. After the legal age is passed, school work is dropped and, for a girl, the servant's life often begins, unless she is married at once. At any rate she anticipates marriage and works with that as a goal, not to escape work, but to gain a certain independence and that end of all effort, "to be married". Nor is it surprising that cousin marriages are frequent. In fact, even where no known relationship exists between the contracting parties, it is probable that they are from the same strains.

The early marriage is usually followed by a large family of children. Some die in infancy in nearly every home, but most of them survive a trying babyhood and develop fairly robust physical constitutions. They are born into the same narrow circle that their parents were, and unless some powerful factor changes the routine, they are apt to follow the same path until past middle age. For, except where tuberculosis has ravaged, disease has spared these people.

So it is that the meagre social life, the customs of their parents, the natural ostracism of the higher classes, and the individual's preference for a congenial mate induce endogamy, or in-marriage, among the mentally deficient.

It has been maintained that the dispersion of such communities of feeble-minded persons would stimulate out-marriage and that this would increase the chance of marriage with different and perhaps better blood and thus diminish the frequency of appearance of defects in the next generation. The instances of the two daughters, II 8 and 10 on Chart A, who married comparatively normal men supports this view. Their progeny are, as a whole, a better class of citizens than the progeny of their sisters who mated with feeble-minded men. Nevertheless, the fifty percent of the offspring who were feeble-minded or criminal, even in these cases, constitute a menace which should be considered.

Another case still more to the point is that of III 19 on Chart A. He was from a criminal, alcoholic family and possessed both of these traits. He migrated to another state and married a woman who had more intelligence than either of the normal husbands of II 8 or 10. Only one of their children shows the criminal tendencies of the father, though the two youngest are neurotic, and backward in school. After the mother found out the real character of her husband and his family, she left him. While such repression of defective traits in the progeny by marriage into normal strains is beneficial to the community, it involves a great sacrifice on the part of the normal consort. However, the consort is only one; the progeny many.

The more frequent result of the migration of a feeble-minded individual is his marriage into *another defective strain* in a different part of the country. The change in locality usually means that two different kinds of feeble-mindedness are united instead of two similar types. The pedigree of the consort of III 9 on Chart B illustrates this point.

Here is a union of stolid, shiftless feeble-mindedness with a type of mental defect close to insanity. Let us examine this case in detail. III 9 on Chart A was a farm laborer who migrated a hundred miles eastward. He located in a rural community and married a girl whose family had lived in this place for several generations. Her family's pedigree is given below in Fig. 3 and its history is the following.

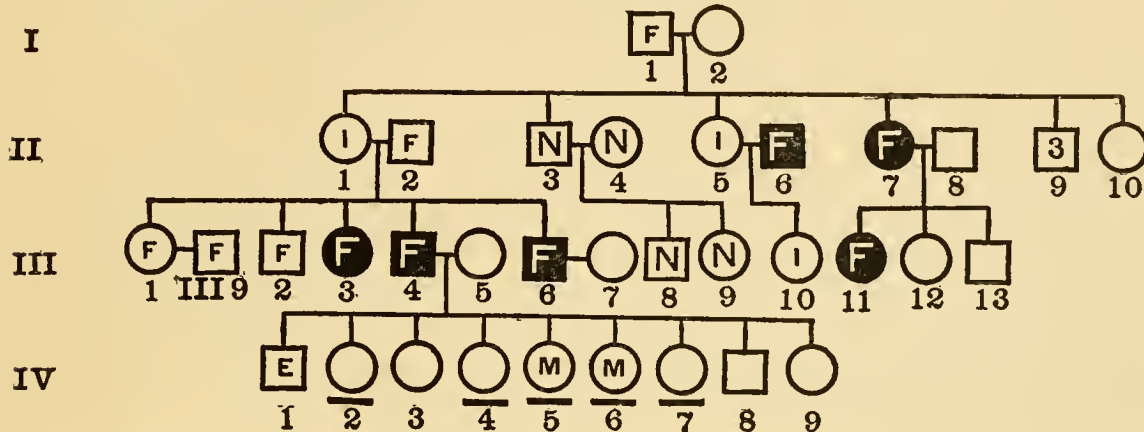


FIG. 3.

The grandfather was always pointed out as a simple-minded man, harmless and inefficient. Nothing is known of his wife. They had eight children; one of whom is normal, three are mentally affected and the conditions of four are unknown.

The mother of the wife in question was known as a "crazy fool". Early in life she appeared merely feeble-minded, but symptoms of insanity developed later. She now has a strong religious mania. She married a man who lacked judgment and ambition. He was easily imposed upon. He lived with her until they had five children, then, unable to endure his wife's mental condition, he left home. All of their children are feeble-minded.

III 1 is the high-grade feeble-minded girl who married III 9 on Chart B. III 2 was a son who worked out as a farm laborer. He was feeble-minded and naturally the butt of his companions. When twenty years old, he was killed by eating poisoned melons by mistake. III 3 is a daughter who died at sixteen years of age and was defective mentally and physically. III 4 is a son now about fifty, who works for a farmer. He is a typical feeble-minded man. He lives in a tenant house with one son. His wife, who is described as a fairly respectable woman, left him and took the two youngest children with her. They had nine children in all, five of whom are in institutions.

The oldest son (IV 1) who lives with his father has typical epileptic attacks; he does a little work as a farm laborer. The second child (IV 2) has been taken to the State Industrial School for Girls. The third one (IV 3) has begun the usual occupation for such girls,—housework in a farmer's family, though she is but fifteen. She is about normal mentally. Finally, there are four girls in the County Home for Children. Two of them have severe attacks of migraine, and none of them are strong children.

The last son married and left that part of the country. He was not normal, whether feeble-minded or insane could not be determined,

The one son of the second generation who has become a good citizen is a bright, respected man, and keeps a small country store. He has married and has two bright children. His sister (II 5), known as "crazy Maud", married a feeble-minded man and they had one child who became insane. Her sister's (II 7) mental defect was characterized by "foolishness". She was probably more feeble-minded than insane. She married a man of whom nothing is known and had three children. One of these children is feeble-minded like her mother. Finally, there were in this fraternity three brothers and one sister of whom nothing is known.

This pedigree is not cited as a rare example of a consort's defective family tree, but as a typical case. We must conclude, then, that the social laws and natural preference of the individual are so powerful that like will consort with like even in exogamy, or out-marriage. Consequently the benign results of exogamy to the next generation are realized only to a limited degree. The extent of the improvement in the characteristic defective traits will depend on the normal traits of the consort, or on the different type of feeble-mindedness which he exhibits.

VI. THE FINANCIAL BURDEN ENTAILED BY CRIMINALS AND DEPENDENTS

A. PAUPERISM AND CRIME

Looking at the relation of The Hill families to society on the financial side, we see the three chief ways in which they have been an expense to the public are through town relief, court and prison charges, and their maintenance as the State wards. The town of about 2,000 inhabitants in which the original ancestors settled has had to bear most the burden of the petty bills for relief. The poor records of this one town have been used to get an estimate of the cost of these families to the town, and these records run back only to war time. From 1863-64 to the present time, some families of The Hill have had partial or entire public support. The proportion of the town's poor bill which went to those families was not obtainable for the earlier years. Fairly accurate figures for the two decades, however, may give an idea of how the expense of aiding them has increased during the last thirty years.

Decade.	Total Aid to Paupers.	Aid to The Hill Families.	Percent of Total to The Hill Families.
1879-89 excluding 1888	\$15,964	\$1,483	9.3%
1901-1910	\$27,045	\$7,873	29.1%

In the accompanying table, the expenses for ten years from 1879 to 1889 inclusive have been used, except the report of the year 1888 which was not available. The names of families aided were omitted in the intervening years 1889-1900, but from 1901-1910 more detailed reports were published. In the first decade 9.3 percent of the town's bill for paupers was paid for The Hill families. In the second decade, 29.1 percent of

the total bill was paid for the same families or their descendants. During the thirty years covered by these decades, the total aid given to paupers increased 69.4 percent, but that given to The Hill Families increased 430 percent. It is probable that more than 9.3 percent of the \$15,964 expended from 1879-89 went to these people, for in some instances the names of those aided were not recorded. This possibility, however, would only slightly lessen the enormous proportion of 430 percent increase. Besides the usual bills for rent, provisions, fuel, and medical attendance, the last decade contains the item of partial support of three children in the State School for Feebleminded. The births, minus the deaths, during this same period caused an increase of about 59 percent in the number of individuals connected with The Hill families. This means, then, that for 59 percent increase in numbers, their expense to the public has increased 430 percent.

Turning to the court and prison records for the last thirty years, we find that at least sixteen persons from The Hill families have been sentenced to prison for serious crimes during that time (see Table I). A majority of these crimes were against sex, and the sentences varied from ten years to two months, or were indeterminate. Only four of these criminals are still in institutions, five are dead and the rest have served their terms and been discharged.

TABLE I. COST OF CRIME

Person.	Crime.	Sentence.	Court Costs.	Penal Institution.	Total.
Chart A, III 1	incest.	9 years.	\$236.89	\$1423.54	\$1660.43
" IV 1	lewdness.	2 years.	39.20	294.00	333.20
" IV 9	lewdness.	died after 2 years.	40.00	294.00	334.00
" III 12	perjury.	1 year.	25.00	216.44	241.44
" IV 31	lewdness.	2 years.	20.00	236.80	256.80
" III 18	assault with attempt to rape.	10 years.	304.86	1449.50	1754.36
" III 22	concubinage.	5 years.	147.66	767.40	915.06
" III 42	adultery.	5 years.	75.73	869.81	945.54
" III 47	burglary with attempt to rape.	6 years.	113.87	805.70	919.57
" III 36	assault.	1910—indeterminate.	28.03	24.34	52.37
Chart B, III 3	arson.	5 years.	122.80	624.00	746.80
Chart B, III 54	assault and murder.	1899—indeterminate.	384.38	1873.30	2257.68
Chart C, IV 38	lewdness.	1910—indeterminate.	29.55	154.00	183.55
" III 24	assault.	2 months.	11.30	55.74	67.04
" III 46	habitual drunkard.	1910—indeterminate.	25.44	18.75	44.19
" III 1	rape.	case filed, not sentenced.	51.40	—	51.40
					\$10,763.43

The cost of these sixteen persons to the County and State through the courts and institutions has been at least \$10,763.43. The accompanying table presents a slight analysis of the cost, and gives the crimes and sentences. The arrests for drunkenness and disorder have not been included. They are very frequent and the cases are usually disposed of by a fine or thirty days' imprisonment. About a third of the business of the district court comes from these families.

The third large item of expense which falls upon the public, through the State treas-

ury, is the maintenance of the wards which have been taken from their homes. Table II gives the list of those who have become State charges from 1888 to September, 1911. Of the thirty-five, twenty-one are still under the control of the State as institutional cases or because they are under twenty-one years. The expenses of commitment, board, clothing, school tuition and officers' salaries is difficult to compute, but as accurately

TABLE II. COST OF MAINTENANCE OF STATE WARDS

Person.	Age when Committed.	Cost of Commitment.	Maintenance by State Board and Institutions.	Total.
Chart A, IV 14	12	} \$26.30 {	\$1,404.00	\$1,430.30
Chart A, IV 16	6		10.00	10.00
Chart A, IV 15	4		2,184.00	2,184.00
Chart A, IV 18	16	15.00	910.00	925.00
Chart A, IV 29	34	10.00	436.43	446.43
Chart A, V 31	4	} 25.00 {	384.00	409.00
Chart A, V 28	11½		384.00	384.00
Chart A, V 29	2		1,284.00	1,284.00
Chart A, IV 60	11	} 25.00 {		
Chart A, IV 61	8		5,091.84	5,116.84
Chart A, IV 62	5			
Chart A, IV 63	3	} 59.67 {	18.00	77.67
Chart A, IV 104	10		18.00	18.00
Chart A, IV 105	4		18.00	18.00
Chart A, IV 106	3	} 49.77 {	756.00	805.77
Chart A, IV 112	6		756.00	756.00
Chart A, IV 115	1		1,224.00	1,259.00
Chart A, IV 117	11	} 35.00 {	1,656.00	1,656.00
Chart A, IV 119	8		2,010.00	2,010.00
Chart A, IV 121	7		1,692.00	1,692.00
Chart A, IV 118	9	} 40.05 {	1,140.00	1,180.05
Chart A, IV 138	10		1,200.00	1,200.00
Chart A, IV 139	8		1,140.00	1,140.00
Chart A, IV 140	7	} 26.51 {	1,178.00	1,178.00
Chart A, IV 141	4		1,404.00	1,430.51
Chart B, IV 28	12		1,560.00	1,566.20
Chart B, IV 29	10	6.20	2,028.00	2,047.70
Chart B, IV 31	8	19.70	4,108.00	4,127.10
Chart B, IV 33	5	} 19.10 {	2,652.00	2,652.00
Chart B, IV 35	4		2,818.00	2,843.00
Chart B, IV 36	10		1,404.00	1,419.00
Chart B, IV 37	8	15.00	1,716.00	1,731.00
Chart B, IV 38	6	15.00	2,213.50	2,228.50
Chart B, IV 39	4	15.00	651.50	663.50
Chart B, IV 41	9	12.00		
			Grand total	\$45,888.57

as can be estimated, these children, during the last twenty-three years, have cost the State \$45,888.57. This means that for nine families about \$2,000 each year has been expended to maintain children whose parents were unfit to care for them. One other expense to the State has been the care of the insane man III 15 on Chart C. His commitment and care in two different institutions since 1902 has been \$1,831.32.

The financial burden, then, which The Hill people entail is constantly increasing,

and that far beyond the proportion of their increase in numbers. This burden rests especially upon the town in which they live. The 400 percent increase in the financial aid which they have required in the last decade presents this fact in a startling manner. The large percentage of the crimes which were against sex indicate that the influence which such persons exert in a community is of far more importance than the 10,700 odd dollars spent in punishing the criminals after the influence has been established. The money expended on the State wards is well spent where even half of them are trained for useful citizenship, but the imposition upon society of an equal number of undesirable citizens calls for a policy of prevention which will work hand in hand with the present one of partial alleviation.

B. COMPARISON WITH THE JUKES

A comparison of the results of this study with that of Dugdale on the Jukes will be profitable. The total number of individuals studied here is about the same: 737 persons as contrasted with 709 persons given in Dugdale's Summary. Of this number, in our study there are in generation I, 13; in gen. II, 68; in gen. III, 191; in gen. IV, 360 and in gen. V, 105.

Of the 737 persons represented in our charts 18 are known to be illegitimate, or 2.4 %. This is in rather striking contrast to the Jukes where of 709 persons 91 are given as illegitimate, or 12.8 %. There is other evidence of a greater regard in our community for legal marriage and, on the whole, considerably more sex-control.

Our community comprises 180 described persons of marriageable age. Of these, 152 are married (including 82 females) and 28 are not married. As compared with the Jukes our community has relatively twice as many unmarried persons. Of the married women, 14 had bastard children before marriage and 6 have had bastard children since marriage; or, together, 20 out of 82 married females, or 24%. In the Jukes there were 37 who had bastards out of 118 or 31%. In our community there are recorded 8 prostitutes, all married women, or 10% of the married women. Among the Jukes there were 128 prostitutes to 229 women of marriageable age. This form of sex-offense is, consequently, much less common in the Massachusetts community. Indeed, promiscuity, without any commercial aspect, is quite as common as prostitution here.

In our community charitable relief of all sorts, including almshouse, out-door relief, State wardship and out-farming was given to 65 persons, of whom 37 were State wards. This is about 8.8% of all. Among the Jukes 204 out of 709 or 29% were recipients of aid. But Civil War pensions have contributed at this later date to the support of a larger proportion of persons than at the time the Jukes were studied. Our community comprises 136 "feeble-minded" or about 48% of all. There are also 10 epileptics. Of the marriages 20 were between cousins, or about one fourth of all.

Criminal tendencies are clearly shown in 24 persons, 3.3%; and 16 have been convicted of crime, or 2.2%; and their total sentence is 37.5 years. In the Jukes there were 76 persons sentenced out of 709 or about 11% and the total sentence was for 110 years. Crime is much less rife in the Massachusetts community. It is, on the other hand, characterized by much alcoholism. If we recognize three grades in the use of liquor;

viz., heavy, medium and light drinkers, and estimate the number of years during which they have used liquor, then it appears that there have been about 600 years of heavy drinking and 300 years of medium drinking. If the heavy drinker averages one pint of whisky per day and the medium drinker one third as much, then our small rural community has consumed, in the last two or three generations, at least 32,000 gallons of whisky at, say, \$2.00 per gallon, costing altogether, \$64,000.

In general, this Massachusetts community differs from that of the Jukes in having a larger proportion of indolent, unambitious persons, unable to progress at school, and probably a larger proportion of alcoholics; but, on the other hand, a smaller proportion of criminals and of sex offenders. They are, on the whole, less *active* as offenders. And this difference is probably due to an initial difference in their heredity constitution.

We may now attempt to give, following Dugdale, an estimate of the expense to the State of this one obscure community.

Number of adult paupers.....	20	
Cost of charitable relief.....		\$ 15,000
Number of state wards.....	35	
Cost at \$1,300 per year.....		45,800
Number of criminals and offenders.....	24	
Years of imprisonment.....	37.5	
Cost of maintenance and court costs.....		10,760
Number of persons guilty of habitual thieving.....	10	
Cost of depredations, at \$100 per year for 10 years, each.....		10,000
Number of lives sacrificed by murder.....	1	
Value, at \$1,700.....		1,700
Number of prostitutes.....	8	
Cost of the state and people, at Dugdale's estimate.....		170,000
Cost of property destroyed, arson, brawls, etc.....		7,000
Money spent for drink.....		64,000
Number of years of labor lost during 640 years of hard drinking.....	320	
Ditto, during 280 years of medium drinking.....	28	
Loss, at \$500 per year.....		<u>174,000</u>
Total cost.....		\$498,260

The most of this loss has been incurred during the last sixty years, just because little is known about the community earlier than that time. Not until the third generation, born 1840 to 1860, do we begin to get a fairly complete view of the community. During the period of the past sixty years the cost to the State of this rural community of whose very existence the State is only beginning to take cognizance, has been half a million dollars. And there are probably a score or more of such communities within the borders of the State, some of them much more expensive than this community. It is probably a conservative estimate that all such *rural* centers of "degeneration" together are costing the commonwealth half a million dollars *each year*. These rural communities, just because relatively unrecognized by the State, and neglected, are, at the present time, of proportionately little direct cost to the State; but they are a rapidly increasing expense and the longer they are neglected the greater will be the eventual reckoning. While the feeble-minded of our cities are promptly recognized and cared for by segregating, those of the rural communities are for the most part allowed to reproduce their traits

unhindered and to create and send forth the broods of prostitutes, thieves, and drunkards that flock into our cities.

VII. SURVEY OF THE PRESENT SCHOOL CHILDREN

Most of the previous discussion has been in regard to the first four generations,—those individuals who are old enough to have their traits fully developed and their habits firmly established. There is, however, a comparatively large number of children between the ages of six and sixteen years, who are growing up to form the fifth generation of The Hill people. A brief study of the school record of seventy-five of these children as outlined in Table III may give one an idea of the prospect for the next generation.

The school record of seven of them is not known. The others have been divided into two classes, those who are up to grade and those who are below the grade they should be in. Brief descriptions of the mental traits which they have exhibited in school serve as an index of the characteristics which are developing. Glancing down the list of thirty-eight children who are below grade, two causes for their backwardness stand out most prominently. Either they are unable to fix their attention upon one thing long enough to grasp it, or else they require so much more time to comprehend ideas upon which they have concentrated, that they progress only half as fast as the average child. They are frequently irregular in attendance so that they even lose the stimulus of regular systematic work. All of these children attend rural schools where no special provision is made for the backward child. Because the schools are so small, this class of children not only constitute a drain upon the teacher's time and resources, but retard the progress of the entire class in which they are studying. Occasionally they develop mischievous qualities, but usually they are quiet, stupid laggards. They will leave school as soon as the law will allow and go to form the lower strata in the industrial world as they have in the academic. Five of these thirty-eight have one parent who is approximately normal.

Thirty children from similar families have kept up to their grade. Most of them do as well as children of ordinary parentage, though only eleven of them have one or both parents who are not feeble-minded. A few of them are the slow ones in their classes.

This brief survey, then, indicates that before adolescence half of the children from The Hill families show evidences of their mental handicap. The detrimental influence which such children may exert upon the rural schools which they attend is an important matter for consideration. How many of the other half, who have held their own with children of average parentage, up to adolescence, will be able to keep up to the same standard from sixteen to twenty-five is an open question. Its solution depends largely upon the comparative weight of hereditary and environmental influences during that period.

TABLE III. SCHOOL CHILDREN FROM SIXTEEN TO SIX YEARS OF AGE

Person.	Age, September, 1911.	Parents.	Up to Grade.	Below Grade.	Grade Unknown.
Chart A, V 4	15	F—Industrious but feeble-minded man; good workman; not alcoholic. M—Feeble-minded; shiftless; epileptic till 16.		Nervous, hysterical and dull; epileptic till 12 years.	
Chart A, V 5	13	F—Industrious but feeble-minded man; good workman; not alcoholic. M—Feeble-minded; shiftless; epileptic till 16.		Nervous; slow to learn; dislikes school.	
Chart A, V 6	10	F—Industrious but feeble-minded man; good workman; not alcoholic. M—Feeble-minded; shiftless; epileptic till 16.	Slow, but not unusually dull.		
Chart A, V 7	8	F—Industrious but feeble-minded man; good workman; not alcoholic. M—Feeble-minded; shiftless; epileptic till 16.	Normal.		
Chart A, V 17	14	F—High-grade feeble-minded; shiftless. M—From a low family; feeble-minded; and immoral.		Slow; takes two years in a grade.	
Chart A, V 18	12	F—High-grade feeble-minded; shiftless. M—From a low family; feeble-minded; and immoral.		Inattentive and irresponsible; takes two years in a grade.	
Chart A, V 19	10	F—High-grade feeble-minded; shiftless. M—From a low family; feeble-minded; and immoral.		Inattentive and irresponsible; takes two years in a grade.	
Chart A, V 19	8	F—High-grade feeble-minded; shiftless. M—From a low family; feeble-minded; and immoral.			I
Chart A, V 21	10	F—Son of marriage of feeble-minded cousins; very alcoholic. M—Normal.	In fourth grade, does only fair work, slow to grasp new ideas.		
Chart A, V 22	9	F—Son of marriage of feeble-minded cousins; very alcoholic. M—Normal.	Is in third grade; is a bright child.		

TABLE III.—*Continued*

Person.	Age, September, 1911.	Parents.	Up to Grade.	Below Grade.	Grade Unknown.
Chart A, V 25	7			First grade; is incapable of doing the work which other children do.	
Chart A, IV 47	14	F—Alcoholic; feeble-minded; criminal tendencies. M—Normal.	Nervous; is defective in articulation; does fair work.		
Chart A, IV 64	11	F—Feeble-minded; very alcoholic; unable to control sexual instincts; married his cousin.		In first grade for several years; seems impossible for her to learn.	
Chart A, IV 65	8	F—Feeble-minded; very alcoholic; unable to control sexual instincts; married his cousin.	Is in second grade, and precocious in some lines.		
Chart A, V 38	9	F—Alcoholic; wanderer.	}		2
Chart A, V 39	7	M—High-grade feeble-minded woman.			
Chart A, V 41	9	F—Very high-grade feeble-minded; comparatively industrious. M—Migrainous; immoral tendencies; high-grade feeble-minded woman.		Backward in school.	
Chart A, V 42	7	F—Very high-grade feeble-minded; comparatively industrious. M—Migrainous; immoral tendencies; high-grade feeble-minded woman.	Normal.		
Chart A, IV 78	12	F—Very alcoholic, shiftless, feeble-minded. M—High-grade feeble-minded woman.		Is about a year behind grade; not well, subject to fainting spells; is profane.	
Chart A, IV 79	9	F—Very alcoholic, shiftless, feeble-minded. M—High-grade feeble-minded woman.		Is in first grade; backward in book learning but grasps practical things quickly; untruthful and profane.	
Chart A, IV 104	10	F—Feeble-minded; alcoholic; shiftless. M—Feeble-minded and deaf.		Is in first grade; no power of attention.	

TABLE III.—*Continued*

Person.	Age, September, 1911.	Parents.	Up to Grade.	Below Grade.	Grade Unknown.
Chart A, IV 114	7	F—Alcoholic; shiftless. M—Tubercular; probably a high-grade feeble-minded woman.	Normal in school; has had epileptic fits.		
Chart A, IV 129	10	F—Neurotic; moderate drinker; average intelligence. M—Migrainous; average intelligence.			Valvular heart trouble.
Chart A, IV 132	11	F—High-grade feeble-minded man. M—Shiftless; high-grade feeble-minded woman with immoral tendencies.		Is in third grade in school; interested in his work, but unable to grasp ideas.	
Chart A, IV 134	9	F—High-grade feeble-minded man. M—Shiftless; high-grade feeble-minded woman with immoral tendencies.		Is in first grade; does only fair work.	
Chart A, IV 135	7	F—High-grade feeble-minded man. M—Shiftless; high-grade feeble-minded woman with immoral tendencies.		Not in school; tests a year backward by Binet.	
Chart A, V 48	10	F—Unknown. M—Immoral; average intelligence.	Normal.		
Chart A, V 50	8	F—Unknown. M—Immoral; average intelligence.	Up to grade; has one limb congenitally shorter than the other.		
Chart A, IV 154	11	F—Alcoholic; high-grade feeble-minded; poor physique. M—High-grade feeble-minded; untruthful.	Normal.		
Chart A, IV 155	9	F—Alcoholic; high-grade feeble-minded; poor physique. M—High-grade feeble-minded; untruthful.	Normal.		
Chart A, IV 156	15	F—Migrainous. M—Migrainous; subject to fainting spells.		Anemic; subject to migraine; left school; poor student.	
Chart A, IV 157	13	F—Migrainous. M—Migrainous; subject to fainting spells.	Normal.		

TABLE III.—*Continued*

Person.	Age, September, 1911.	Parents.	Up to Grade.	Below Grade.	Grade Unknown.
Chart A, IV 158	11	F—Migrainous. M—Migrainous; subject to fainting spells.	Normal.		
Chart A, IV 159	9	F—Migrainous. M—Migrainous; subject to fainting spells.	Normal.		
Chart A, IV 171	14	F—Normal. M—Feebleminded; immoral tendencies.	Normal.		
Chart A, IV 172	7	F—Normal. M—Feebleminded; immoral tendencies.		Mischievous and quarrelsome; a poor student.	
Chart B, V 1	9	F—Normal. M—Very high-grade feebleminded.	Normal.		
Chart B, V 2	7	F—Normal. M—Very high-grade feebleminded.	Normal.		
Chart B, IV 8	16	F—High-grade feebleminded, industrious. M—Feebleminded; shiftless.		Is in first grade; very feebleminded.	
Chart B, V 12	9	F—Unknown. M—High-grade feebleminded.	Normal.		
Chart B, V 13	6	F—Unknown. M—High-grade feebleminded.	Normal.		
Chart B, V 18	9	F—High-grade feebleminded. M—High-grade feebleminded.	Normal.		
Chart B, V 19	8	F—High-grade feebleminded. M—High-grade feebleminded.	Normal.		
Chart B, V 23	7	F—Normal. M—Normal; daughter of feebleminded parents.	Normal in school work but a delicate child.		
Chart B, V 25	8	F—Neurotic. M—Normal daughter of feebleminded parents.	Normal in school work; is cross-eyed.		
Chart B, IV 43	8	F—Feebleminded; shiftless. M—Imbecile.		Talks indistinctly; progresses slowly in school.	
Chart B, IV 61	12	F—High-grade feebleminded; shiftless. M—High-grade feebleminded.		Backward in school; unable to learn.	

TABLE III.—*Continued*

Person.	Age, September, 1911.	Parents.	Up to Grade.	Below Grade.	Grade Unknown.
Chart B, IV 62	10	F—High-grade feeble-minded; shiftless. M—High-grade feeble-minded.		Feeble-minded; can not count above five.	
Chart B, IV 64	8	F—High-grade feeble-minded; shiftless. M—High-grade feeble-minded.		Very slow in school.	
Chart B, V 33	15	F—Unknown. M—High-grade feeble-minded.			I
Chart B, V 34	11	F—Unknown. M—High-grade feeble-minded.	Is in fourth grade; does good work.		
Chart B, IV 89	15	F—High-grade feeble-minded. M—Unknown; tubercular.		Is in sixth grade; is slow and unable to grasp ideas.	
Chart B, IV 90	12	F—High-grade feeble-minded. M—Unknown; tubercular.		Is in fifth grade, but not as bright as other children.	
Chart C, IV 1	10	F—Alcoholic; feeble-minded; deaf and criminal tendencies. M—Feeble-minded.		Very backward and troublesome in school; the butt of the other children.	
Chart C, IV 2	14	F—Alcoholic. M—Normal.		Is neurotic, dislikes school; is inclined to truancy.	
Chart C, IV 13	13	F—Apparently normal. M—High-grade feeble-minded; migrainous.	Seventh grade; does fair work.		
Chart C, IV 14	12	F—Apparently normal. M—High-grade feeble-minded; migrainous.		Is in sixth grade; slow to learn.	
Chart C, IV 15	7	F—Apparently normal. M—High-grade feeble-minded; migrainous.		Has been in first grade two years; cannot count to ten.	
Chart C, IV 25	14	F—High-grade feeble-minded. M—Migrainous; fair intelligence.		Is quiet and well behaved in school but requires two years in each grade.	
Chart C, IV 26	12	F—High-grade feeble-minded. M—Migrainous; fair intelligence.		Is quiet and well behaved in school but requires two years in each grade.	
Chart C, IV 27	10	F—High-grade feeble-minded. M—Migrainous; fair intelligence.		Is quiet and well behaved in school but requires two years in each grade.	

TABLE III.—*Continued*

Person.	Age, September, 1911.	Parents.	Up to Grade.	Below Grade.	Grade Unknown.
Chart C, IV 28	7	F—High-grade feeble-minded. M—Migrainous; fair intelligence.		Is quiet and well behaved in school but requires two years in each grade.	
Chart C, IV 47	13	F—Alcoholic; feeble-minded. M—High-grade feeble-minded; shiftless.		Is nervous and deficient in school work.	
Chart C, IV 48	8	F—Alcoholic; feeble-minded. M—High-grade feeble-minded; shiftless.	Does fair work.		
Chart C, IV 57	12	F—High-grade feeble-minded; shiftless. M—Shiftless.		Is in third grade; an indifferent student.	
Chart C, IV 58	11	F—High-grade feeble-minded; shiftless. M—Shiftless.		Has not been able to do second grade work.	
Chart C, IV 59	9	F—High-grade feeble-minded; shiftless.	Are in first grade.		
Chart C, IV 60	twins. 7	M—Shiftless.			
Chart C, IV 61			Normal; in first grade		
Chart C, IV 73	13				2
Chart C, IV 74					
Chart C, IV 66	13	F—High-grade feeble-minded; shiftless. M—High-grade feeble-minded.		Is in third grade; stupid and lazy.	
Chart C, IV 68	13	F—High-grade feeble-minded; deaf; shiftless. M—Tubercular; probably feeble-minded.		Is in third grade; tries to learn but has not the mental ability to grasp his work.	
Chart C, IV 69	10	F—High-grade feeble-minded; deaf; shiftless. M—Tubercular, probably feeble-minded.		Slow and deficient.	
Chart C, IV 70	8	F—High-grade feeble-minded; deaf; shiftless. M—Tubercular; probably feeble-minded.		Slow and deficient.	

VIII. HEREDITY AND ENVIRONMENT

Some of the children who were taken from home in childhood or early youth have improved over others of their fraternity who were left in a poor environment, and some have not. A comparative study of the varying results of good and poor environment upon individuals from the same germ-plasm increases the evidence of the power of individual potentialities.

Table IV has been compiled to show the two factors, heredity and environment, and the result of their combined action. The age of the individual at the time when the change in his environment occurred, and at the present time also, is given as another important factor. In view of the careful investigations of the State Board of Charity which precede the placing out of its wards, it is assumed that their new environment is conducive to normal development. Where details of the new home are known, they are inserted. The data on the present condition of the wards have been obtained from personal interviews with the individuals and from the records of the State Board of Charity. It is admitted that some of the data are unsatisfactory. The reports concerning the younger children naturally emphasize the physical rather than the mental health of the child. In most cases, however, information on the mental and moral traits has been obtained.

Of the thirty state wards who have been away from home long enough to be affected, fourteen, approximately half, are at present, or probably will be, good, average citizens. Of these, seven carry an almost intangible burden of unfortunate heredity which may always be a retarding factor. For instance, a person is a good workman, but forgetful and easily influenced; or a good workman, but always physically handicapped; or a trusty boy, but slow to learn. The remaining seven whose ages vary from thirty-two to four are apparently without a serious handicap. But in three of these cases children from the same family who were younger when removed from home, have not developed desirable traits, like their older brothers and sisters. On the contrary, IV 62, on Chart A, who was five when her environment was changed is untruthful and unkind to her brother, IV 63, who is dull and quick tempered and shows some evidence of mental deficiency. He was only three when taken from home, while the more successful children, IV 60 and IV 61, were eleven and eight years old. From another family, the three older children, IV 117, 118 and 119, developed satisfactorily while their sister, IV 121, who was but seven when taken to a good environment, was thievish and untruthful and gave birth to an illegitimate child when sixteen. The third contrast is on Chart B between IV 29, IV 31 and IV 35, and IV 37 and IV 39. The first three responded to their improved surroundings and have taken their places in the outside world very acceptably. The other two have not. IV 37 cannot care for his own money, nor support himself and has committed petty larceny. IV 39 has immoral and thievish tendencies and cannot progress at school. Here, IV 35 and IV 39 were both four years old when taken from home. It seems evident that the potentialities of the different members of these fraternities varied widely.

TABLE IV. RELATION OF HEREDITY AND ENVIRONMENT UPON THIRTY STATE WARDS

Person.	Age When Taken.	Age, September, 1911.	Parents.	Environment.	Result to September, 1911.
Chart A, IV 14	12	32	F—A feeble-minded man, imprisoned for incest. M—A feeble-minded woman who had two illegitimate children while her husband was in prison.	Placed on a farm; a good home; foster parents interested in him; they employ him since the state discharged him.	Was unable to progress in school. A good workman under supervision. Unable to care for his own money. Married a feeble-minded girl and has two children.
Chart A, IV 15	4	24	F—A feeble-minded man, imprisoned for incest. M—A feeble-minded woman who had two illegitimate children while her husband was in prison.	Placed in several homes but none were permanent, chiefly on account of the boy's disposition.	Was untruthful and stubborn; inclined to petty thefts. In school was a fair, but disorderly scholar. Ran away from his last home.
Chart A, IV 16	6		F—A feeble-minded man, imprisoned for incest. M—A feeble-minded woman who had two illegitimate children while her husband was in prison.		Died at six years.
Chart A, V 28	11½	14	F—Feeble-minded and very alcoholic. M—The illegitimate daughter of feeble-minded cousins; also feeble-minded.	Placed in a good home.	Is well and strong.
Chart A, V 29	2	10	F—Feeble-minded and very alcoholic. M—The illegitimate daughter of feeble-minded cousins; also feeble-minded.	Placed in a good home.	Does good work in school
Chart A, V 31	4	6	F—Feeble-minded and very alcoholic. M—The illegitimate daughter of feeble-minded cousins; also feeble-minded.	Placed in a good home.	Is in good health; is a bright boy.
Chart A, IV 60	11	19	F—Feeble-minded and very alcoholic; the illegitimate father of the mother above. M—Imbecile; daughter of cousin marriage; had the same mother as the above woman.	Placed out at service.	Neurotic, a good house maid; engaged to be married.

TABLE IV.—*Continued*

Person.	Age when Taken.	Age, September, 1911.	Parents.	Environment.	Result to September, 1911.
Chart A, IV 61	8	16	F—Feebleminded and very alcoholic; the illegitimate father of the mother of IV 33. M—Imbecile; daughter of cousin marriage; had the same mother as the mother of IV 33.		A good workman; forgetful, not strong minded.
Chart A, IV 62	5	13	F—Feebleminded and very alcoholic; the illegitimate father of the mother of IV 33. M—Imbecile; daughter of cousin marriage; had the same mother as the mother of IV 33.	Placed in a home with her younger brother.	Is a slight girl, untruthful and unkind to her younger brother.
Chart A, IV 63	3	11	F—Feebleminded and very alcoholic; the illegitimate father of the mother of IV 33. M—Imbecile; daughter of cousin marriage; had the same mother as the mother of IV 33.	Placed in a home with the above sister.	Is dull and unattractive; quick tempered, and laughs without provocation.
Chart A, IV 112	6	11	F—Alcoholic and shiftless. M—Tubercular; probably feebleminded.	Placed in a good home.	Is amiable, quiet and well behaved; not bright for his age.
Chart A, IV 115	1	4	F—Alcoholic and shiftless. M—Tubercular; probably feebleminded.	Boarded out.	Attractive looking, large for his age and very healthy.
Chart A, IV 117	11	32	F—Neurotic; cousin to his wife's mother. M—Migrainous.		Had a satisfactory record till discharged by State Board. Is at work as a farm laborer.
Chart A, IV 118	9	31	F—Neurotic; cousin to his wife's mother. M—Migrainous.		Very slow to learn when young, but gradually improved; large for her age; is married.
Chart A, IV 119	8	30	F—Neurotic; cousin to his wife's mother. M—Migrainous.	Placed in a good home and attended school till seventeen.	Good and kind-hearted, but slow to learn; now married.
Chart A, IV 121	7	29	F—Neurotic; cousin to his wife's mother. M—Migrainous.		Was inclined to steal and seldom told the truth; gave birth to an illegitimate child when sixteen. Discharged by the State Board.

TABLE IV.—*Continued*

Person.	Age when Taken.	Age, September, 1911.	Parents.	Environment.	Result to September, 1911.
Chart A, IV 138	10	17	F—High-grade feeble-minded; imprisoned for rape before his marriage to his cousin's daughter. M—Feeble-minded; had chorea; imprisoned for lewdness.		In good physical condition. Has a difficult disposition; unbalanced mentally; untidy in his person.
Chart A, IV 139	8	15	F—High-grade feeble-minded; imprisoned for rape before his marriage to his cousin's daughter. M—Feeble-minded; had chorea; imprisoned for lewdness.		Was placed in State School for Feeble-minded when fourteen.
Chart A, IV 140	7	14	F—High-grade feeble-minded; imprisoned for rape before his marriage to his cousin's daughter. M—Feeble-minded; had chorea; imprisoned for lewdness.	At board in a private family.	Has a disagreeable disposition; is given to use of profanity. Has poor mental ability; is in sixth grade at school
Chart A, IV 141	4	11	F—High-grade feeble-minded; imprisoned for rape before his marriage to his cousin's daughter. M—Feeble-minded; had chorea; imprisoned for lewdness.	At board in a private family.	Over grown for his age; admitted to School for Feeble-minded at eleven years.
Chart B, IV 28	12	35	F—Shiftless and feeble-minded. M—An imbecile.	Bound out at service.	High-grade feeble-minded but tries to care for her family well; married a feeble-minded man, has four apparently normal children.
Chart B, IV 29	10	33	F—Shiftless and feeble-minded. M—An imbecile.	Bound out at service.	Shiftless, but has average intelligence; married an electrician; has one normal child.
Chart B, IV 31	8	31	F—Shiftless and feeble-minded. M—An imbecile.	Bound out at service.	Has average intelligence; married and has one normal son.
Chart B, IV 33	5	28	F—Shiftless and feeble-minded. M—An imbecile.	Placed on a farm with her brother.	Developed epilepsy at thirteen years; now in State Hospital.
Chart B, IV 35	4	27	F—Shiftless and feeble-minded. M—An imbecile.	Placed on a farm with the above sister.	Has migraine; always sickly; of average mentality.

TABLE IV.—*Continued*

Person.	Age when Taken.	Age, September, 1911.	Parents.	Environment.	Result to September, 1911.
Chart B, IV 36	10	23	F—Shiftless and feeble-minded. M—An imbecile.	Placed in a Children's Hospital.	Had epilepsy when removed from home, now in State Hospital.
Chart B, IV 37	8	21	F—Shiftless and feeble-minded. M—An imbecile.	Placed out till seventeen, then lived in high-grade feeble-minded aunt's home.	Cannot support himself nor manage his own affairs; has committed petty larceny.
Chart B, IV 38	6	d. 17	F—Shiftless and feeble-minded. M—An imbecile.	Placed out on a farm.	Could not talk plainly till ten years old; was not bright. A good workman; sometimes untrustworthy; d. at a State Hospital.
Chart B, IV 39	4	17	F—Shiftless and feeble-minded. M—An imbecile.	Placed in a good home where the woman was interested in her.	Had chorea and recovered. Was slow in school and inclined to truancy; has thievish and immoral tendencies. Now in a State Hospital.
Chart B, IV 41	9	13	F—Shiftless and feeble-minded. M—An imbecile.	Placed in a Charitable Home, and placed out several times, but was always returned.	Is not very bright but a trusted boy about the Home.

In some instances we can compare with those who were removed to a good environment, the careers of other members of the same family who were brought up in the poor environment of home. One sister in the fraternity where there are two successful and two unsuccessful State wards (Chart A, IV 60, 61, 62 and 63) married a drunkard. She is immoral and a common nuisance. A brother is becoming a confirmed drunkard; a sister eleven years old is decidedly feeble-minded, but the three younger children, ranging from eight to four years, do not as yet show any abnormal traits. The children in the fraternity to which IV 117, 118, 119 and 121 belong, who remained at home are of the same mediocre grade as three of those taken by the State. Apparently none of the children at home have shown the thievish and untrustworthy characteristics such as the State ward IV 121 has evinced. In the fraternity on Chart B which includes IV 28 to 43 there are normal children, epileptics and feeble-minded among the ten who were removed from home. Only two, aged eight and ten, remained with the parents. One of these is an epileptic imbecile and the other is shy and somewhat backward at school. On Chart A, IV 112 and 115 also have a brother and a sister who were left at home when their family was broken up. The girl has a fairly good environment at her aunt's home and is apparently normal. Her brother who is epileptic lives with a feeble-minded family and does well in his school work. All of the children in this family are so young and there is so little information in regard to the younger State ward, IV 115, that this case is of little value. In these cases, therefore, the children who have been left at home have usually, but not always, been behind their brothers and sisters who had better advantages.

We have been considering only the State wards who showed normal traits, and their fraternities in contrasting environments. Turning now to the families of III 1 and III 47 on Chart A, we have two examples of an entire family of subnormal children. IV 14 and 15 are uncles of the children of III 47. Both IV 14 and 15 were placed out in private homes. IV 14 is a plodding workman with good morals, but low mental ability. IV 15 was evidently more restless and had criminal tendencies. Among the brothers who remained at home, two very similar types occur. IV 5 on Chart A is industrious, dull and spiritless, efficient mentally rather than morally, while his brother, IV 8, was more active but not industrious; he was a sexual offender and has drifted out of the town. The differences in their environment had no appreciable effect on these boys. The one brother of IV 138-141, who is not dependent, has been adopted and has a fairly good home. He learns with difficulty but apparently has a more even disposition than the older children, 138 and 140.

There is one more aspect of the combined influences of heredity and environment to be considered. Occasionally in a fraternity all of whom had lived at home during their youth, one individual will stand out as superior to the others. The unfortunate parentage and environment have not left their mark on such persons, except in minor ways. The most striking instances of this are III 30 on Chart A and III 12 and III 39 on Chart B.

III 30 on Chart A has always lived among her brothers and other feeble-minded relatives, and, as may be expected, shows her ignorance and lack of culture, but at the same time she has an interest in the condition of her home and children and in outside affairs, such as the church society, which her brothers and mother do not have. On Chart B, III 12 is the only one of seven married brothers and sisters who has a respectable home. The other homes are dirty and ill-managed. Hers is neat, modest and apparently well conducted. She also is interested in the local church. She was brought up with these shiftless, feeble-minded children until the father's premature death scattered the family. She then entered service and the influences of this period of her life are not known. The third person, III 39, on Chart B is one of four children. She was always associated with her family and cared for her feeble-minded mother who was addicted to the use of opium, until her death. Her home is comparatively neat and her daughter shows good home training. It is true that these exceptions are not frequent in comparison with the number of children in the same fraternity who do not rise above the level of their parents, but that they do occur is sufficient reason for noting them.

These cases, then, prove that persons belonging to these strains who have been brought up under good influences may turn out well or ill, and that even when placed *early* under the good conditions the result may be highly unsatisfactory. On the other hand, of members of the same fraternity who remained at home under the same poor environment, some turned out relatively well. It is not to be denied that the latter would have done better if their culture had been superior, nor that the "easily influenced" workman would have taken a wrong path if surrounded only by bad influences instead of good. But, on the other hand, it is clear that the capacity of these people for good or evil is born with them and bred in the bone and environment acts as a more or less effective screen or lure, as the case may be.

The five State wards who will always require custodial care (Chart A, IV 139 and 141, and Chart B, IV 33, 36 and 39), as well as the others who promise to be active trouble-makers or passive drags, raise the old question of a more effective control of defectives. The appearance of an occasional normal child from very defective strains does not lessen the importance of the question, for the evil influences of the rest of the fraternity greatly overbalance such an exception.

The following history of the progeny of two persons who were plainly unfit for parenthood at sixteen years of age constitutes a powerful argument, especially from the financial point of view, for the policy of segregating positively defective germ-plasm. This family has lived most of the time on The Hill near the Rasp family, but only the parents are at home now as nine of the thirteen children have been taken by the State, three died in infancy, and one, in a Women's Reformatory. The father of IV 9 on Chart A may be called Jim (see Fig. 4). He came from a poor family of whom little is known, except

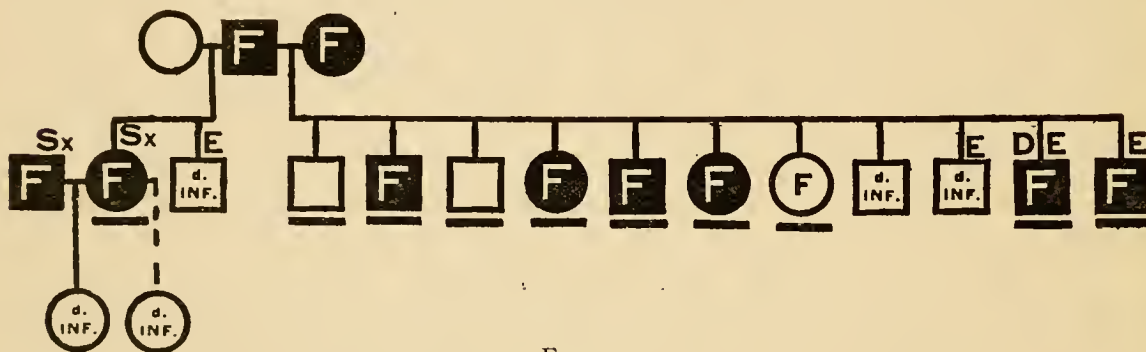


FIG. 4.

that on his mother's side there was a criminal tendency that was shown by her brother and nephew. Jim had two brothers who were criminals; but he was not intelligent enough to commit a crime. He went to the war and became entitled to a pension. His guardian obtained one for him and for forty years has cared for it so that it might help support the family. Jim increases this income by day labor.

The sixteen year old girl who became his first wife was from a fairly good family. She had two children, one of whom died in convulsions. At twenty-one she died from starvation and exposure to the cold. Jim soon married a woman who was very defective. She says she is nine years old and has had several children,—she cannot tell how many. The other members of her family are practically normal; and she seemed to be until after an illness at twelve years. The result of Jim's second marriage has been at least eleven children.

When the oldest children were ten, seven, and five years old respectively, the State removed them from home, charging the parents with neglect. They left a year-old baby with the mother. About the same time, the daughter of the first wife who had married IV 8 on Chart A was taken to a Women's Prison, where she died two years after the birth of her illegitimate child.

Ten years later the case of this family was again brought before the State and four more children were taken away on the grounds of neglect. Meanwhile, two of the

babies had died, one at two years with typhoid fever, and one at three with convulsions. After another ten years had elapsed, the father inquired why his two remaining boys were not taken away. He complained that they ate too much. Neither of them could talk, one being both deaf and dumb. Both of them had "fits". The home was in the edge of a wood so that the boys ran about in summer like little wild animals. They often wore practically no clothing and were always chewing the stubs of old pipes. The State finally complied with the father's wishes and these two boys were removed.

On tracing the careers of these children, we find that the oldest one was discharged by the State Board when nineteen years old, with nothing unfavorable in his record. The second one was sent to a School for Feeble-minded when eight years old. The third one was discharged with a very favorable record. Nothing definite is known of him since his discharge. Of the group of four, three were placed in the School for Feeble-minded at twenty, fourteen, and four years respectively. The fourth one is now about fourteen years old. She is not very strong, has not recovered from an operation for adenoids, and does not develop rapidly mentally. The two youngest boys who have been recently removed are in a State Hospital. They can never care for themselves.

If we compare the possible cost of early segregation with the actual cost of this family, we find that if Jim and his second wife had been placed in custodial care at sixteen years of age at three and one half dollars per week, which is the average rate for institutional care, and had been maintained for forty-five years, they would have cost the State \$16,380. Allowing the children now in institutions to live until fifty years of age, and computing the past cost for maintenance of the wards already discharged, we find that they will require \$47,942, or nearly three times as much. This estimate does not include the frequent town aid which Jim has had, nor the possible expense the discharged wards may entail.

Such cases are not rare. The family of III 14 and 15 on Chart B would show a similar record, and these are only two taken from a limited area. Should the industrious, intelligent citizen continue in each generation to triple or quadruple his taxes for maintaining these defectives, and even then be subject to the increasing social menace of their offspring, or can steps be taken to strike at the root of the trouble and prevent the propagation of inevitable dependents?

SUMMARY

1. The analysis of the method of inheritance of feeble-mindedness shows that it can not be considered a unit character. It is evidently a complex of quantitatively and qualitatively varying factors most of which are negative, and are inherited as though due to the absence of unit characters.

2. The value of out-marriage, or exogamy, as a means of attenuating defective strains is diminished by the action of social barriers and the natural preference of individuals, which induce marriages among like grades of mentality, in a foreign as well as a native locality.

3. The amount of town aid which this one group of defective families requires decen-

nially, has increased 400 % in the last thirty years. In the same length of time its criminal bill has been \$10,763.43 for sixteen persons; and the bill for its thirty children who were supported by the State during the last twenty-three years is \$45,888.57. During the past sixty years this community has, it is estimated, cost the State and the people half a million dollars.

4. Half of the present number of school children from these families who are living at home show evidence of mental deficiency.

5. One half of the State wards from the community in question have reacted favorably in an improved environment and give promise of becoming more or less useful citizens; the other half consist of institutional cases and those which have not reacted to the better environment, but are likely to become troublesome and dangerous citizens.

6. The comparative cost of segregating one feeble-minded couple and that of maintaining their offspring shows, in the instance at hand, that the latter policy has been three times more expensive.

IX. APPENDIX

DESCRIPTION OF CHART A

I 1. Old Neil Rasp, the originator of the pedigree shown on Chart A, came with his wife across the low mountains into a fairly good agricultural region about 1800. He was a basket maker by trade and his home was in various shanties in the woods. With the proceeds from his trade, and his hunting and fishing he eked out a living. He was always very poor, for he drank heavily. His family was helped by neighbors. He is described by old men as a harmless fellow, "rather decent" as far as criminal tendencies are concerned, but very shiftless. Not much could be learned about his mental ability. His alcoholism impressed these old men most when they were boys. He died in 1866 and it was said that he was a hundred and one years old. His wife was a high-grade feeble-minded woman who worked out for farmers' wives. She, too, drank but not to such excess as her husband did.

Two brothers of Neil appeared in this region about the time he came, but one of them had no posterity and the other one, Nute, settled in a neighboring town where his descendants form a low-grade strain plotted on Chart C.

Neil had five children, all of whom were defective. They have all had large families of criminal, feeble-minded and alcoholic children. Twenty-five of their posterity have been, or are, State wards and others will be soon.

II 1. One daughter, II 1, was born in 1811. She received no early education. She b. 1811. married a shiftless feeble-minded fellow, II 2 (b. 1813-d. 1883), who was even less intelligent than herself. She worked out for farmers' wives.

II 4. Another daughter, II 4, was also feeble-minded. She married into a Nead family, b. 1815. which is said to have descended from a Hessian soldier who was left in this region when Burgoyne passed through, and which had always been noted for marauders and drunkards. Old man Nead, II 3, was very alcoholic, and in his later life, he had epileptic fits. He alternated excessive religious fervor with long sprees. II 4 was a tartar and "would

have made a fiend of any man". They lived in a rude house and she did washing which gave her the opportunity for innumerable petty thefts. Her boys show the most criminal tendencies of any in the pedigree.

II 6. The only son of old Neil Rasp was II 6, who was very shiftless and drank heavily. Like his father, he lived in shanties in the woods, and he devoted so much time to hunting woodchucks that he was known as "Woodchuck Sam". He was married twice and his descendants are the most alcoholic branch of the pedigree. At one time his entire family, wife and eight children, were wholly supported by the town, but for the last thirty years they have required only partial support.

II 8. The daughter, II 8, was weak-minded and acquired a very bad reputation, though no definite accounts of her life could be obtained. She married a man (II 9, b. 1830-d. 1885) who was on the list of the town poor but was fairly intelligent. He drank only moderately. Their offspring seem to be improving on the old stock in intelligence and thrift, but their morals are still low.

II 10. The daughter II 10 was "the brightest in the family", though not of average intelligence. She married a normal man and their children are brighter than any of the others in their generation.

Each of these five children will be taken as the founder of a line (Lines A to E). Among their children in the second generation there are seven cousin marriages.

LINE A (Offspring of II 1)

Of her six children one, III 6, died at nineteen years, but the rest married.

III 1. III 1 worked about for farmers and finally married a very feeble-minded woman from
b. 1860 the Nuke family whose pedigree is found on Chart B. They had at least eleven children
d. 1900. which the town helped them to support. When visited, the wife of III 1 was in the field husking corn. Her uncombed hair, heavy fleshy face and protruding lower lip made her look more like an animal than a woman. She could not tell how many children she had had nor where many of them were. Three of them had been taken by the State as neglected children and she had never heard from them. Her husband was in State Prison for nine years for incest with his daughter. During that time she had two illegitimate children (IV 19 and 20). Of one of them nothing is known. The other one is a farm laborer, a good worker, and has average intelligence.

IV 1. Of her legitimate children, IV 1 was committed to a Women's Reformatory for two
b. 1874 years as a result of her father's crime. This was when she was seventeen years old.
d. 1909. She later married her father's own cousin, III 47, who had been in prison for burglary with intent to rape. She was able to read but was feeble-minded and had chorea. Her children are described in her husband's family, page 43. She died at twenty-five years of age of heart trouble.

IV 3. The twin brother of this girl was feeble-minded and worthless. Nothing is known
b. 1874 of his wife. Both of their children died in infancy, one at two years of bronchitis, the
d. 1901. other at nine days of congenital debility.

IV 5. Another brother is a plodding, faithful workman on a farm, with little ambition and

- b. 1872 low mental ability. He earns good wages which he turns over to his wife. She is a very shiftless and incompetent woman from a feeble-minded family. She was subject to epileptic fits until sixteen years old. They live in a farmer's tenant house five or six miles from the railroad. The four children do not like school and do not get on well. They live near the school house, so the teacher sends them home, sometimes, to be cleaned up.

The oldest girl is fifteen. She had epileptic attacks until twelve years old, and is now nervous and dull, and has the heavy stupid expression of an epileptic. One of the boys is nervous and slow to learn and seems deficient mentally. The eight and twelve year old children appear normally bright, but it is a question how long they will develop normally. Three of this fraternity died in infancy; two were twins who lived three weeks and then succumbed to whooping cough.

- IV 7. IV 7 is a high-grade feeble-minded woman, who is possibly syphilitic. She married
b. 1878 her father's own cousin, III 46, in whose family her children are described (page 43). Before her marriage she had one illegitimate girl, V 11, who is now about seventeen years old.

Another daughter gives satisfaction in the small boarding house where she is employed, but is very untruthful and persists in making friends of the girls who hang about the railroad station at train time, though her employer, a good, intelligent woman, has tried to dissuade her from it.

- IV 8. A son was a wild immoral fellow, who married a feeble-minded girl (b. 1872-d. 1897)
b. 1869. from a family which has had all its nine children that lived through infancy removed by the State Board of Charity, as neglected children (see page 32). They lost one child. She became pregnant by a town loafer and was taken to a Women's Reformatory. This illegitimate child died there when a year old, and the mother died about two years after her commitment. The husband lived with various women after his wife was taken away and all trace of him has been lost.

Of the three children of this fourth generation who were taken by the State, one was twelve, one six, and one four. The six year old boy, IV 16, died soon after his removal.

- IV 14. The twelve year old boy was boarded out with a farmer. He was deficient mentally
b. 1879 so that he could not progress at school. He was a good workman but lacked judgment and any idea of the value of money. When discharged by the State, he remained in the employ of his foster father who cares for him as a guardian. To everyone's surprise he found a girl who consented to marry him. She is a slattern and comes from a low-grade family. They live in a small unplastered house near the farmer's home. His foster father reminds him when his wood pile needs replenishing and goes to town with him to get his provisions, and his daughter makes clothes for the children. With this supervision he keeps his family fairly comfortable, but otherwise they would be continually in distress. His two children are five and three years old. The oldest one was a bright baby, but is losing her keenness and seems apathetic. In the case of this man, a good environment was not able to overcome the influence of his heredity. Note, too, that there is no restraint to the propagation of a large family here, like the father's own.

This family, as soon as, or perhaps before, his old friends are gone will become a public burden and menace.

IV 15. The four year old boy was also placed out. He was stubborn and untruthful and
b. 1887 committed petty thefts. He was a fairly good but disorderly scholar. He finally ran away with some other boys and no trace of him has been found.

IV 18. The youngest child was working in a neighboring state and was placed in the State
b. 1890 Industrial School for Girls because her surroundings were conducive to trouble. She could not progress above the second grade in school, and was subject to violent fits of temper which have recently become less frequent.

There were at least two children in this fraternity who died in infancy, one of diphtheria and one of convulsions, and the mother remembered that she had given birth to one still-born child.

III 5. We return, now, to the third generation. The oldest brother is a high-grade feeble-
b. 1844 minded man, shiftless and happy-go-lucky; he cannot read nor write. He married a woman of the same type who inherited a small farm from her father, where they now live in a dirty little house in a pasture. He also has a little money in his own right inherited from his mother. She obtained it from the government through a long law suit after the death of her son II 6, who died in the war. III 5 has no children.

III 7. The second sister has a short history. She was a high-grade feeble-minded girl, and
b. 1853 married a farm laborer who was very alcoholic. She had but one child (b. 1869) who
d. 1907. was migraine and is subject to "fainting spells". This daughter married her mother's own cousin who is described under III 52, page 44. The mother died in a hospital from an operation.

III 9. III 9 was an immoral feeble-minded woman. She kept a kind of country tavern six or seven miles from town. Of the various men who lived there she was probably married to a drunken, shiftless fellow whose name the children bear. She was shot in a drunken brawl while trying to separate two men who were quarreling about her.

Of her children, IV 22 has migraine and is of fair intelligence. She married her mother's cousin and the family is described under III 41, page 42.

IV 24 is shiftless, dull of comprehension and easily influenced. He works some of the time in a mill; married an immoral French woman from a low family, and lives with her in a very dirty, ill-kept tenement with her four children. The oldest boy is a low-grade imbecile, he can do a little mechanical work in the mill, but is known in the village as the "foolish fellow". The daughter is untidy but was doing the house work when the home was visited. In school both she and her two younger brothers are inattentive and irresponsible, often staying two years in a grade.

Little information could be obtained concerning IV 25, except that he married and had seven or eight children who are scattered in the nearby city, most of them with families of their own.

III 11. III 11 was a plodding, dull, drinking fellow who went to war and on his return married
d. 1872. his own cousin (III 12, b. 1847-) who is so feeble-minded that she has a guardian to care for her pension money. The result of this marriage was a daughter who is a low-grade

imbecile (IV 27), but the mother of eleven children; one son who is very alcoholic (IV 28), but the father of seven children; and an epileptic son (IV 29). About four years after his marriage, the father died from pneumonia, contracted, it is claimed, by spending a night in the pig pen when he was so drunk that his wife would not let him into the house. His family were entirely supported by the town for the next six years, costing over \$1,300, and then partially supported for two years. By that time the widow had secured a pension which, with State aid and help from the town fund for dependent soldiers, has supported her for the last thirty years. A few years after her husband's death she had an illegitimate colored child, IV 31, and was imprisoned in the Women's Reformatory for a year on the charge of perjury in regard to the child's father. Soon she had two more children, IV 33 and 34, by a cousin, III 27, who later married her imbecile daughter (IV 27). Their family is given under III 27, page 40.

IV 28. The alcoholic son married III 21 (the former wife of his mother's cousin) while her
b. 1871 husband was in jail. He has often been arrested for drunkenness and disturbing the peace. His home is a typical one for a drunkard. The children were sucking old pipes for playthings. The hard-working wife is ignorant but of average intelligence. There were seven children of whom two died in infancy. The oldest boy is ten; both he and his older sister are slow in school, but not abnormally dull. Two other children are very backward in their school work; the youngest is not of school age.

IV 29. The epileptic son is also feeble-minded and congenitally lame, probably from clubfoot.
b. 1872 He was supported with his mother for years, but has now been placed in a State School for Feeble-minded Children.

IV 31. The mulatto daughter married and had one child. She left her husband and was
b. 1877 living with another man who had served a term in the State Reformatory for theft, when she was sent to the Women's Reformatory for sixteen months for lewd and lascivious conduct. She was then twenty-one years old.

IV 33. One of the illegitimate daughters by her cousin was feeble-minded and married a
b. 1881 very alcoholic man from a family of the same grade as her own, in the neighboring town.
d. 1907. (See Chart C, 41.) She had three children, one of whom, a blue baby, died when five days old. She was arrested for adultery once, but no case was proven. Her two year old child was taken by the State at this time. When only twenty-six she died from the kicks and blows of her drunken husband, and the two remaining children became State wards. All three children are well and strong and still (at 14, 10 and 6 years) getting on nicely in school. They have, so far, reacted well to their good environment.

IV 34. The remaining illegitimate child is a high-grade feeble-minded girl who keeps a
b. 1886 comparatively neat cottage near the tiny shack in which her mother lives. She married a decidedly feeble-minded man who drinks heavily. They have no children.

LINE B

Returning to the second generation, the next in order is II 4. She was the daughter who married into the Hessian family and whose sons are criminal.

III 12. III 12, who has just been described as the consort of III 11, was one of this family.

- III 15. III 15 is probably feeble-minded. She appears of average intelligence, for she is sharp-tongued and voluble. She is immoral and somewhat addicted to the use of alcohol. She has been married twice to drunkards, and has two boys by her first husband and a daughter who is illegitimate. Her second husband drinks so much that he can not conduct his business of caning chairs. One son is a wild fellow who is not married but who cohabits. The other son has married and is a "good fellow", but drinks heavily. The daughter is fairly intelligent, but very ignorant. Her husband, also, is a drunkard and is not strong. They have three small sickly children.
- III 18. III 18 was the black sheep of this rather black family. He could not progress at school and was wild and dissolute. He was finally sentenced to State Prison for ten years for assault with intent to rape. His trial and maintenance in prison cost the State over \$1,700.
- III 19. The next brother is a high-grade feeble-minded man and a confirmed drunkard. He stabbed his father in a drunken row, wounding him severely. He moved from his native town and married a normal woman who says she would never have married him if she had known his family. She will not live with him now, but hires a few rooms for herself, and her sons help to support her. They have six boys. The oldest son formerly drank, but through church influences has reformed; has married a normal woman and has a good home and two little boys. The second son married an Italian girl and went to the city. IV 44 is a good workman in a factory and helps to support his mother. The fourth son is unmanageable. He is underhanded and wild and has been arrested for petty larceny. The school record of the two youngest boys shows that both of them have neurotic tendencies. One was subject to violent fits of temper, and both had some difficulty in articulation. They were fair scholars.
- III 22. This son would not progress in school. He was immoral before his marriage to a
b. 1855? girl who was working for his mother. They had two children, one of whom, the boy, lives with his mother. The girl died in infancy. This man was sentenced to five years in State Prison for concubinage, about thirteen years ago. Soon after he went to prison his wife married IV 28, her husband's nephew. The former is now at liberty, a shiftless, immoral wanderer.
- III 24. III 24 was employed at housework when a girl and gave satisfaction. She had three children by one man before she was twenty-one and then married him, as she learned that otherwise she could not legally claim anything from him. She is now a confirmed neurasthenic and very hysterical. At one time she was sent to an institution for treatment for mental trouble. Her husband is a collier and fairly respectable. They have a comfortable home. Their son is not ambitious, but works in a small store, is a "slim stick"; caused the downfall of a girl that was a ward of a charitable institution, and finally married an apparently bright intelligent girl. The older daughter is an imbecile of a low grade, the cause of whose deficiency is given as scarlet fever, but it is probably congenital. The younger daughter has migraine, but nothing definite could be ascertained about her mental ability; she works in a factory.
- The youngest daughter of II 4 was a good-natured, fairly industrious girl, who married a barber. They had two boys. The family could not be located.

LINE C

- II 6. "Woodchuck Sam" was married twice. Nothing is known of his first wife by whom
 b. 1830.? he had two boys, III 27 and 29. Both of these boys are alcoholic and have large families
 d. 1894. living in abject poverty. Sam, himself, had town aid almost continually. The oldest
 entry of such aid dates back to 1864.
- III 27. One son is the man by whom II 12, his cousin, had two illegitimate children. He
 b. 1850. then married her imbecile daughter, IV 27 (b. 1869). Immorality and alcoholism are his
 worst vices, but he has also committed petty thefts. He works as a teamster or wood-
 chopper when he is sober. He has sprees which last two or three weeks. At such times
 he uses all his money for hard cider and then his wife begs or steals more cider for him. Two
 of their eleven children are married and four have been taken by the State. When they
 are not travelling around the country visiting, they live in an old house on the edge of the
 woods three or four miles from town. There is almost no furniture in it and the broken
 windows are stuffed with rags. An agent from the State Board of Charity investigated
 the case recently, preparatory to removing the four youngest children. The family
 became alarmed and moved to a neighboring State, so that the matter is delayed until
 their return.
- IV 57. The oldest daughter married a drunkard and lives in a small hamlet where the stage
 b. 1888. is the only means of communication with the town several miles away. She is lazy,
 untruthful, and immoral. Her filthy home is often the center of drunken disturbances.
- IV 58. The second daughter married her own cousin, but died of tuberculosis before she
 b. 1889. had any children.
- IV 59. The oldest boy, about twenty-one years old, is following his father's drinking habits.
 b. 1890. He is a farm laborer.
- IV 60. Of the four children who were taken by the State, IV 60 is neurotic and not very
 b. 1892. strong mentally. She earns good wages at service and is engaged to be married.
- IV 61. IV 61 is not strong physically or mentally, and is very forgetful.
- IV 62 & 63. One brother and one sister are together in a home. The girl is not very strong, and
 is untruthful and unkind to her brother. He is dull, unattractive, quick-tempered and
 laughs without provocation.
- IV 64-67. The four younger children are underdeveloped and ill-cared for. Their school work
 is often interrupted when the father is on a spree and the mother takes them visiting.
 They are shy and apprehensive. IV 64 is feeble-minded. At ten years of age she is in the
 first grade and cannot learn anything. The younger children are under eight and have
 not developed the traits of their older brothers and sisters.
- III 29. The next younger brother of III 27 is very alcoholic, and when drunk, extremely cruel
 b. 1852. to his family. He chops wood in the winter and loafs or works, as it happens, in the
 summer. His wife is a very high-grade feeble-minded woman. Her mother is a hard-
 working, dull, but respectable woman, who has cared for various illegitimate children of
 her other daughters. The former home of this family was a tumbled-down house on a
 stage route six miles from town. It was a rendezvous for all relatives when they were
 especially down on their luck, but this family has also moved over the line to prevent

the State from taking their children. There have been ten of these (IV 69-81), of whom an account follows.

- IV 69. The oldest girl is a high-grade feeble-minded woman. She has been married twice.
b. 1881. She left her first husband on the ground of non-support and married a laborer who is a wanderer. They never live long in one place. He has a spree about every month. They have three children (b. 1902, 1904, 1906), the oldest of whom was very backward in learning to walk and talk.

- IV 72. IV 72 is a slovenly woman who has severe attacks of migraine. She married a
b. 1884. somewhat feeble-minded laborer, but they have separated. Their dirty home was situated at a cross roads where teamsters often stopped. The woman has a reputation for immorality and one of the three children is a small dark type very different from the others. This one has a hip congenitally undeveloped, but it is improving as she grows older. All of the children are under ten years of age. This mother and children have also left the State to escape a warrant of the State Board for neglected children.

- IV 73. IV 73 is a woodchopper and a drunkard. He brought his feeble-minded wife to his
b. 1886. father's already over-crowded house. They fled with the father's family to save their dull anemic baby (b. 1908) from the State Board. One daughter in her teens was found with a broken neck at the foot of an embankment. It is supposed that the father in a drunken rage chased her from the house and off the bank.

- IV 76. The next daughter is a delicate girl who has a chronic heart trouble and cannot live
b. 1892 many years. She is fairly intelligent and keeps herself comparatively clean.

Two boys died; one in infancy from convulsions, and one of appendicitis. The latter was considered the brightest of the family.

IV 78 and 79 are in school but are slow and backward, partly because the family have moved so often. The boy does poorly in the first grade at nine years, but grasps practical things quickly. Both children are untruthful and profane. The youngest children (b. 1903 and 1906) do not attend school.

- II 7. After his first wife died "Woodchuck Sam," II 6, lived about in the woods in shanties with his two little boys, but soon married a feeble-minded woman, II 7, from a low family. She has a cleft palate. The result of this marriage was eight children (III 30-40), the youngest of whom is a typical cretin.

- III 30. The eldest girl is apparently normal. She married a man from a shiftless family.
b. 1869. He formerly had a long court record for drunkenness, but through the church he has reformed and is conducting a paying business. He has a comfortable home and three apparently normal children.

- III 31. III 31 has a good trade at which he could easily earn four dollars a day, but he does
b. 1881 not work regularly and drinks up all his wages when he does work. He married his cousin's daughter, IV 123, who is about the grade of a moron. She has had two children and one miscarriage. The children are underfed and underdeveloped physically and mentally. One of them has fits which the country doctor attributes to malnutrition.

- III 32. III 32 is feeble-minded. He is married but does not live with his wife. He returned to his mother's home.

III 34. III 34 is practically normal mentally. She married the brother of her uncle, II 9. He is a high-grade feeble-minded man, and has the physical defect of a hare-lip. They live four miles from town in a lumbering district where he works as teamster. They have seven children living, and lost a baby at three months.

Two boys are normal and one girl's characteristics are not known. IV 89 is feeble-minded and has immoral tendencies. She married her mother's cousin III 54 (page 18), and her children are described in his family. Since his death she has lived with her uncle though not married to him. Two of the boys have hare-lips: one of them, 92, is a good workman and is normal mentally; the other, 98 (b. 1888), is decidedly feeble-minded and lives at home. IV 95 is the only child who shows the mother's weakness, and has asthma.

III 36. III 36 is a shiftless drinking fellow. He married a feeble-minded woman who became deaf following scarlet fever. She had the same surname as her husband, but is no near relation. She has been married eleven years and has had nine children and one miscarriage. Four children died in infancy. The family moved continually from place to place and had almost constant town aid. The father worked a little on wood jobs but spent all his wages on hard cider. He was finally brought into court for neglecting his family; but conditions did not improve and when warrants were taken out to remove the children they left the state. On their return three children were committed to the State and the father was sent to the State Reformatory for assaulting an officer. The mother being pregnant, although a menace to the community, was allowed to take her youngest child and go to her sister's home, an undesirable place, where she is now with that younger child and the new baby.

The oldest girl, of ten years, is like a little animal. She begged the sheriff for tobacco and spat and swore like a trooper. All the children were accustomed to chew old pipes at home. They were dull and anemic.

III 38. III 38 is a high-grade feeble-minded man. He has a cleft palate like his mother. He is less shiftless than his brothers and does not drink to excess.

III 39. This son is a big, strong, laboring man, but a drunkard. He married a fairly normal woman (Chart C, III 42) who died of tuberculosis at twenty-nine years of age, leaving four little children,—two others had died in infancy. The father is forced by the court to pay for the board of one child who is with his maternal grandmother. This boy, IV 114 (b. 1904), is epileptic. The State took two children, 112 and 115; 112 (b. 1900) is not bright for his age, but is a quiet, well-behaved child, and 115 is normal. An aunt is caring for 113 (b. 1906) who is apparently normal.

III 40. The youngest girl at twenty-six years of age was three feet tall and weighed sixty pounds. She is a typical cretin.

LINE D

II 8. II 8, who married into a normal family, had four sons. This family has been aided by the town at various times, but is more industrious and less alcoholic than those previously described.

III 41. One son married his cousin's daughter, IV 22, and has had ten children. He is

- b. 1857 neurotic and drinks moderately, but is of average intelligence. His wife has migraine. They live in a tenant house three miles from town and keep their family fairly comfortable. In his early married life he drank more and did not provide for his family, so that four of his children were taken by the State.

The boy has returned home and married and works for a farmer in a neighboring town. He is normal.

The three girls were always slow in school but gradually improved. One of them, 121, was always inclined to steal and seldom told the truth. When sixteen she had an illegitimate child. The other two girls have good moral reputations. The daughter who married her father's cousin has been described under III 31 as a moron.

The other children are practically normal, but their environment is poor. The boys work for farmers. IV 127 has married a shiftless, alcoholic lawyer, and has one child. They live in a tiny village seven miles from town. IV 128 is a nervous girl about sixteen years old. She left school and went away to be married, as her mother supposed, but she returned in a week unmarried.

- III 42. The only criminal in this branch of the family was imprisoned for rape. He afterwards married and had one daughter.

- III 44. Another brother married a woman from a low miserable family. His whereabouts are unknown.

- III 46. The fourth brother married his cousin's daughter, IV 7, who already had an illegitimate child. He is a teamster and lives in a prosperous town. He is a high-grade feeble-minded man and drinks moderately. He earns good wages but his home is very poor. The children are dirty and ill-cared for. All except the oldest and youngest children are in school and are a little backward. The oldest boy (b. 1896) is a farm laborer, the usual occupation for this type of boy.

LINE E

- II 10. The brightest of old Neil Rasp's daughters married into a family of ordinary working people. Many of them drink but they have fair mental ability. She had eleven children (III 47-61), three of whom died in infancy, four are practically normal and the others are weak mentally or morally.

- III 47. One of the sons was a wild fellow. He was arrested for breaking into a house with intent to rape, and was sentenced to State Prison for five years. On his return to his native town, he married the daughter (IV 1) of his cousin. She was a feeble-minded girl who had chorea and who had been in a Woman's Prison for two years for lewdness. She had five children, besides the one by her father. The State removed four of these children on the charge of neglect when the oldest was ten years old. The youngest boy was adopted by a friend.

Of these five children IV 138 is in good physical condition, but has a difficult disposition. He seems somewhat unbalanced mentally and is untidy in his person. Two of these wards who were eight and four years old, when removed from home, have been placed in the State School for Feeble-minded Children. IV 140 was seven years old when taken by the State and placed at board in a private family. She has a disagreeable

disposition, is given to the use of profane language, and at fourteen years of age is only in the sixth grade at school. The adopted child has a good home but does not progress at school. In these cases, the hereditary tendencies have been such as to lead to a favorable reaction to the good environment.

- III 48. One of the normal daughters of II 10 married a drunken fellow who has not lived
b. 1863. with her for twelve years, but who supports one of the four children, IV 148 (b. 1889). Of these the eldest had one illegitimate child (b. 1901) before her marriage. She seems to be normal. Of the two children by her present husband, the older one has one limb congenitally shorter than the other and is a delicate child; the younger one is normal. IV 147 has spinal trouble so that she is obliged to use crutches. She is married but has no children. The son IV 149 (b. 1892) is normal.
- III 50. III 50 is a good workman but very alcoholic. He is round-shouldered, narrow-chested and in a poor physical condition. His wife is an untruthful feeble-minded woman whose first two children were still-born. Their boys are about normal mentally; they progress fairly well at school. The two oldest are like their father, narrow-chested and round-shouldered.
- III 52. Another son has a plain but comfortable home. He does not drink to excess. He suffers from migraine and has a severe cough. He married the daughter (IV 21) of his own cousin who is normal mentally, but ignorant and brazen. She is subject to migraine and to numb spells, when she will talk incoherently. All but one of their eight children are living, and only one of the seven seems to be below the average. She is anemic, has migraine, and is dull mentally.
- III 54. Another brother died in middle life of a cancer. His chief characteristics were his ability as a workman and a stubborn, disagreeable disposition. He was married twice. By his first wife he had seven children, two (IV 165 and 166) of whom are very stubborn; one of them had to leave school for that reason. One daughter (IV 170) is a high-grade feeble-minded girl, but the other children are normal. His second wife was the feeble-minded daughter (IV 89) of his own cousin, who after his death lived with her uncle. There were two children of this second marriage, IV 171 and 172, one of whom is normal, and the other is not defective, but is mischievous and quarrelsome, always getting into trouble with the other boys.
- III 55. III 55 was accidentally shot. He was the most promising child in the family.
The last two daughters were both high-grade feeble-minded women, and both died
III 60. from blood poisoning as the result of abortion. The first of these (III 60) married into an unintelligent family which was not addicted to the use of alcohol. Three feeble-minded boys, a neurotic daughter and three miscarriages were the result of this marriage. The daughter, a nervous, hysterical girl, married her own cousin on her father's side. He is feeble-minded and shiftless but manages to make a living from his trade, painting, and his trapping. They have had two children. The older one, who was hydrocephalic and never sat up, died at two years of age. The younger one, now a year old, is normal physically.
- III 61. The second daughter married a man who is very alcoholic, and whose father also

was a drunkard. One of his brothers was a respectable man, the other, a typical tough. Of the two sons from this marriage, one is untrustworthy and degenerate, and the other is practically normal.

DESCRIPTION OF CHART B

- I 1. The Nuke family which settled in the same corner of the town as the Rasps and intermarried with them, is characterized by shiftlessness and feeble-mindedness. One line of offspring developed insanity and two other lines have several cases of epilepsy. There is less alcoholism in this pedigree though the environment is the same as that of the Rasp family. There is a tendency in this family to migrate farther back into the country, while some of the Rasp family have sought the towns.

The first individual of whom we know came from a neighboring state about 1810. He bought a small farm in the least productive part of the town. He lived here and raised a large family, but the farm has passed out of the family through one son. None of his progeny have acquired any property. This original ancestor was a high-grade feeble-minded man. During his last years he was lame from sores on his legs, the nature of which his granddaughter did not know. His wife was never strong. She had migraine and hysteria. Of her fifteen children, eleven became adult, and six had children.

It is the offspring of II 1 which connects this pedigree with the Rasp family by marriage.

- II 1. This daughter was decidedly feeble-minded. Her first husband, II 2, a comparatively
b. 1825? industrious man, was dull and unintelligent, but brighter than his wife. They lived in
d. 1900. a miserable home in a tiny hamlet ten miles from the railroad, and three or four from a store. One stormy Christmas night she insisted upon his walking to the store for gifts. Returning he became exhausted and was frozen to death. His wife and youngest children were taken to the almshouse. The other children were bound out. The mother soon returned to her old home and married a drunken fellow who, earlier in his career, had traded a dog for a baby girl whose vagrant father wanted to get rid of her. She appears again as III 14, the mother of a large family of dependents. II 1 had nine children (III 1-18), one of whom died in infancy.

- III 1. III 1 was bound out when a child. She was a high-grade feeble-minded woman, but
b. 1866 she had more conception of family ties and responsibilities than most of her relatives,
d. 1910. for at the time of her death she was caring for her feeble-minded brother and nephew, III 3 and IV 37. No definite information could be obtained concerning her husband, except that he was a day laborer. He is probably a high-grade feeble-minded man. The oldest of their two children (IV 1, b. 1885), a girl, is a neurasthenic of poor mental ability. The boy (b. 1889) is also mentally defective.

- III 3. This brother of III 1 has always been very feeble-minded. He was placed in the town
b. 1857 almshouse at fourteen years and was entirely or partially supported until he was twenty-six, when he was sentenced to five years in State Prison for arson. This crime cost the State over \$740. On his release he went to the home of his sister, III 1, where he now lives.

- III 5. Another brother lives in a small village four miles from the railroad and works in a

b. 1850. lumber mill. He is deficient in judgment and reasoning ability but is industrious, and can calculate for his business very accurately. He married a feeble-minded woman and has a poor, untidy home. They had four children, one of whom died in infancy.

IV 5. The oldest girl married an industrious, normal teamster. Before her marriage she
b. 1884 gave satisfaction as a house maid, but her home in a hill settlement ten miles from town is poorly kept and her children are ill-cared for. She seems to be a very high-grade feeble-minded woman. Her two oldest children (b. 1902, '04) are bright in school. The third one (b. 1905) is undersized, anemic and abnormally serious. She had one convulsion when three years old.

IV 6. The second daughter is very deficient mentally. Her husband is an ordinary farm
b. 1890 laborer. She is almost continually on the street of the country village where she lives, and hangs about the Hotel. She has no children but has had one miscarriage.

IV 8. IV 8 is a boy of sixteen years who is still in the first grade of school,—very feeble-
b. 1894 minded but strong physically.

III 7. Another high-grade feeble-minded woman in the third generation married a man who
b. 1864 is now apparently insane. This is the only family in the pedigree which lives in the city slums. The father is a janitor or boiler tender,—the children could not give a lucid account of his business. The mother goes out as a midwife. Their home at the top of two flights of dark crooked stairs is typical for a crowded filthy tenement. The father was so excited over my call and became so violent in his talk that the daughter explained that he had spells when he was "out of his head". The three daughters are all mentally deficient. Two of them are married. One has a pair of sickly twins which a clairvoyant is treating by correspondence. The other has a shy, stupid-looking boy. She is very peculiar and rolls her eyes upward in an abnormal manner when she talks. The youngest child is stupid, slow, and very untidy in appearance.

III 9. III 9 is a shiftless farmer. He has little mental ability. He migrated to another
b. 1855 state and there married a feeble-minded woman from a family of feeble-minded insane persons whose surname is used in their locality to express simple-mindedness, incompetency and shiftlessness (see page 13). The insane mother-in-law is living with her daughter. None of the eight children (IV 14-26) is of average intelligence.

IV 14. The oldest girl is very neurotic; she has hysteria and migraine. She works in a mill
b. 1882 in a small town and is self-supporting.

IV 16. The oldest son is a high-grade feeble-minded boy. He married a woman who has a
b. 1884 bad reputation. They have no children of their own, but have adopted a little girl. Neighbors consider the environment very bad for the child. This man has been in the county jail twice for drunkenness.

IV 18. One girl lives at her father's home, as she is too feeble-minded to keep house for
b. 1887 herself. She had one illegitimate child which died before her marriage to a feeble-minded man. He has since been in jail for larceny. They have one little boy.

IV 21. Another sister who is a very high-grade feeble-minded woman, the type of a moron, has
b. 1885 married a stationary engineer and lives in a large town. Her home is comparatively neat and her children comfortably clothed. Two of the children have had a few fits from indigestion. They are all under ten and appear normal.

IV 23. The youngest girl is simple-minded and sluggish. She has married an apparently
b. 1891 normal German who has little ambition. He attended a small college for three years to please his mother, then married secretly and went to work on a tobacco farm.

IV 25. One boy is very feeble-minded. The father claims that his condition is the result of
b. 1893 typhoid fever, but neighbors affirm that he has never been normal mentally.

IV 26. The youngest boy though handicapped by his environment and poor mental ability,
b. 1896 is interested in school work and wants to study. He is the brightest in the family though "not quite up to the average".

III 11. The feeble-minded daughter who married into the Rasp family has already been
b. 1852 described on page 3 as the wife of III 1 on Chart A.

III 12. III 12 is the only normal daughter. She married a normal man and has a neat,
b. 1860? comfortable home in a small town. She attends one of the churches and the minister remarked upon the superiority of her mental ability in comparison with that of her niece, IV 1. She has no children.

III 15. The brother who has produced the most defective family in this group is feeble-minded
b. 1853 and shiftless. He might have steady employment but will not work regularly. He married the girl referred to on page 45. Nothing is known of her mother. Her father was a drunkard who wandered into a backwoods town twelve or fifteen miles from a railroad and wanted to get rid of his baby girl. He succeeded in trading her for a dog. This child was brought up by II 21 and his first wife, a coarse, drinking woman. She developed into a heavy-faced imbecile and married III 15 who is slightly more intelligent. They have had at least thirteen children, ten of whom have been taken from them by State or County officials as neglected children, and four have had epilepsy. They have lived in various rural districts, always at least seven miles from a town. When visited they were living in the woods in a one-roomed, unplastered shack beside a brook which had to be forded. There was barely room to place the broken chair which was taken as the only available seat, as a filthy bed, a rusty stove, and boxes occupied the rest of the floor space. The mother could not remember how many children she had had, but knew that most of them had been taken from her. Two are still at home, IV 42 and 43.

IV 42. IV 42 is an epileptic imbecile of ten years. Her epilepsy began when she was a year
b. 1900 old. During infancy and early childhood she was not backward, but since then her mind has failed until it is almost entirely gone. Her face is dull and expressionless, and she talks very indistinctly. She has the physical defect of a congenital union of the second

IV 43. and third digits on both hands and feet. The other child at home is about eight years
b. 1903 old. At eighteen months he had one epileptic attack, but has had none since. In school he is slow to learn and speaks indistinctly.

The five oldest children (IV 28, 29, 31, 33, 35) were removed by the State Board of Charity when the oldest one was twelve. They left a baby a few months old at home. These children turned out as follows.

IV 28. IV 28 is a high-grade feeble-minded woman who "does as well as she can". She
b. 1875 married a laborer who has little ability in any line, mental or physical. They live in a small ill-kept house in the country near a railroad flag station. Their first child died

from starvation, as they were having a particularly hard time to get along just then. The other four boys ranging from eight to one years are apparently bright and active. They attend the country school regularly.

IV 29. The second daughter is practically normal. She was placed out by the State Board
b. 1878 of Charity, and finally married an intelligent electrician who is the father of IV 34 by a former marriage. She has an ill-kept home in a manufacturing town. She is shiftless and ignorant but cannot be considered feeble-minded. Her two children were very small at birth. One died in infancy, the other, which weighed three pounds at birth, is a small, delicate child.

IV 33. IV 33 was placed out on a farm with her brother, IV 35. She was wayward and
b. 1883 hard to control. At thirteen years of age she began to have epileptic attacks and was placed in the State Hospital for Epileptics where she now is. She is weak mentally but is able to help with the housework.

IV 35. The brother who was on the same farm has never been strong. He is an industrious
b. 1884 machinist, but migrainous and dizzy attacks often interfere with his work. He has been treated for tuberculosis of the bone. His wife, the daughter of IV 30, is a bright energetic little woman and keeps her home and children neat and clean. Both husband and wife are prominent in the local Salvation Army. They have four normal children and lost one in infancy with spinal meningitis. Though handicapped in many ways by his heredity, he had good inherent qualities which, under a good environment, have enabled this man to become a useful citizen.

IV 36. The child who was a baby when the five oldest children were taken by the State,
b. 1888 remained with her parents until she was ten years old. She was then removed, and also three younger children who had been brought into the world since the first experience with this couple, but nothing was done to prevent the parents from furnishing more dependents. This girl, IV 36, had developed epilepsy at four years of age, so she was placed in a Children's Hospital for four years and then removed to the State Hospital where her sister IV 33 joined her a little later. She is feeble-minded but helps with the housework of the institution.

IV 37. Another child who was placed out is now about twenty, but is mentally deficient.
b. 1890 He cannot care for money or manage his own affairs. He has been arrested for petty larceny, but is now cared for in the home of his aunt, III 2.

IV 38. IV 38 could not talk plainly until he was ten years old. He was fairly bright but
b. 1892 sometimes untrustworthy. He was doing well at farm work at seventeen years, when he was taken ill and died at a State Hospital.

IV 39. IV 39 was only four years old when taken from home. She, too, had difficulty in
b. 1894 talking plainly. Until eight years old, she seemed bright in school, but after that she deteriorated,—became dull and inclined to truancy. She had one attack of St. Vitus dance but recovered, though she is still very nervous. At sixteen she is inclined to petty thieving. She was recently taken to a State Hospital for an operation and is reported to be quite feeble-minded with immoral tendencies.

IV 40. One of the children died about seven years of age in convulsions. His epilepsy began when he was only a few weeks old.

IV 41. IV 41 was removed from home by the County officials of a neighboring State into
b. 1898 which the family had moved. He was nine years old when he was placed in a charitable institution. He has been to various places to work but has always been returned to the Home in a short time. Though not quick nor bright he is one of the trusted boys of the institution.

This one fraternity has had constant dependents for twenty-three years. During that time they have cost the State and County \$20,045, exclusive of outdoor relief furnished by the town. It will probably be only a question of time before the two youngest children will be public charges. Whether that will be soon, so that the few socially useful traits of the lad may have some chance of development, or later after the stage for such development has passed, will be decided by the townspeople who best know their condition.

II 3. To return to the second generation, II 3 was a feeble-minded shiftless man who died
b. 1834 of old age. He drank moderately and had been arrested for petty larceny, but was
d. 1910 usually a harmless, useless citizen. He never married but lived on his father's farm until he became very old. He then gave it to a farmer's wife to pay for her care of him.

II 4. One brother went to war and was killed, and one migrated to New York State.

II 6 & 8. Two older daughters married and had small families which had no progeny. No definite information could be obtained about these families.

II 9. This daughter was sickly and neurotic and was always spoken of as "high-strung". She married a shiftless, alcoholic man and lived near a little village six or seven miles from the railroad. The husband was shot by his nephew, III 54, who was insane. They had twelve children (III 16-32), six of whom died in infancy and one was a still-born child. Of the others, two have had epilepsy, two are normal and one is characterized as the "black sheep".

III 23. III 23 is a good carpenter, has married and lives in a rural community, twelve miles from the railroad. His wife and six year old girl are both normal.

III 25. One daughter is very nervous and hysterical and has had epileptic attacks. When
b. 1874? a child she was bitten by a dog and three years later developed a mania which the doctor called rabies. She recovered from that and a number of years afterwards began to have typical epileptic attacks. They are not very frequent. She is a bright woman and keeps a neat house. She has been married twice, but was divorced from her first husband who was a worthless chap, the brother of II 13. She has no children.

III 27. There is no definite information concerning III 27. He was a wild alcoholic fellow who went to the city.

III 28. The son who has occasional epileptic attacks is a farm laborer. He is not bright
b. 1880 and married a woman of only fair intelligence. They have a comfortable home in the tenement house of his employer. They have two little girls, the older of whom is precociously bright.

III 32. The last daughter in this family is practically normal. She married a man of whom
b. 1872 little is known except that his brother had a very degenerate family. They have one daughter who has a dull heavy face, but is somewhat ambitious, as she is studying type-

writing through a correspondence school. III 32 separated from her first husband and has remarried. She has a neat home in a small town.

II 12. Another daughter of the second generation was so feeble-minded that she was considered mildly insane at one time. She lived to be eighty-six years old and in her later life was addicted to the opium habit. She had two illegitimate children before her marriage to a high-grade feeble-minded man, who had chorea. Little is known of the illegitimate son, III 35, except that he had two children by one wife, then left her and married again. His father was from a family of ill-repute. The illegitimate daughter married an alcoholic man and, when forty-one years old, committed suicide under the stimulus of domestic troubles, by throwing herself in front of a railroad train. They had six children, all of whom are reported to be so far normal.

III 39. The daughter with whom II 12 lived during the last years of her life, is a woman of average intelligence. She married a normal man and has a good home in a manufacturing town. Her daughter is normal, has married an industrious man and has two bright children.

III 41. The two boys are very alcoholic. III 41 is feeble-minded but a good workman, when not intoxicated. He married a distant cousin, a feeble-minded girl who is deaf and almost totally blind. They have a poor home which the mother-in-law helps to care for. It is in a hamlet seven or eight miles from the railroad. They had a pair of hydrocephalic twins who died a few hours after birth.

III 44. The other brother is also feeble-minded. He is married and lives near a small town where he works as a laborer. He has no children.

III 45. A daughter lives in the same hamlet as III 41. Both she and her husband are high-grade feeble-minded persons. He has regular sprecks, is known for his big stories and has committed petty thefts. Their home is typical for this class of people—a small ill-kept house swarming with dirty children. She has had ten children, and one miscarriage.

IV 52. The oldest son is untrustworthy, cruel and quick-tempered. He drinks moderately. He married a girl from a notoriously low family who had one illegitimate son before her marriage. She is fairly bright. Since her marriage she has had three sons, two of whom are twins. The father does not work steadily, but is trying to pay for his house.

IV 53. The second son is practically normal. He does not drink and has steady employment. He married a German girl and has two apparently normal children.

Little is known of the next two daughters except that they go out in domestic service. They are wild girls and have acquired a bad reputation. Probably both are high-grade feeble-minded girls. None of the younger children do well in school. 61, 62, and 64 are especially dull; and 62 is so feeble-minded that at ten years of age he can only count to five. 65 is still a baby at home.

The last daughter is not living. She is reported to have been a high-grade feeble-minded woman, but nothing is known of her husband. Of her four children only one is known to be feeble-minded, IV 66. IV 66 has three children, one of whom has been the victim of rape. Both IV 69 and 70 married very alcoholic men.

II 14. One of the fraternity of the second generation went to war and his fellow soldiers

called him "foolish" and "crazy". He was married and had one child whose whereabouts and conditions are unknown.

- II 17. II 7 was a high-grade feeble minded woman like the rest of the family. Little is known of her husband except that he was "odd". All of her children were considered "odd" and in some of them this oddity amounted to insanity. The children are as follows:
- III 52 & 60. One son and two daughters are married but no definite information about them was obtainable.
- III 53. Another son who was mentally unbalanced never married. Another insane brother
- III 54. was committed to an Insane Hospital twice, and discharged. He finally shot his uncle, II 10, and was placed in the State Prison for the criminally insane, where he has been for the last twelve years. He has cost the State through court and institutions \$2257.68.
- III 56. III 56 is irritable and nervous. He lives on a farm three or four miles from town. He is supported by his pension money and works very little. His wife is dead and little
- III 57 could be learned of his children. They are all plain, ignorant, laboring people. One brother died of tuberculosis. Another is a laboring man who is reported to be normal.
- III 61. The last son of II 17 is a high-grade feeble minded man. His wife died of tuberculosis
- b. 1850? leaving a family of eight children. They live on a farm four miles from town. None of the children are very bright. One of the older boys, IV 84, is known to be a high-grade feeble minded fellow. Another, IV 86, did not get on well at school and was finally expelled for misconduct. IV 87 is about seventeen years old and is the housekeeper. She attends the high school but is mentally deficient and cannot do the work, but is allowed to carry a few studies. The two youngest children are backward in school, slow to grasp ideas or to retain them. If they are kept after school to make up lessons the father whips them.
- II 19. The only living member of the second generation has a fairly neat home in the hamlet
- b. 1837. where III 41 and 45 live. She is a high-grade feeble minded woman who is very neurotic. Her husband formerly had epileptic fits but has not for several years. He owns five acres where his home is and lives on his pension. II 19 had one illegitimate daughter before her marriage, and one son and a miscarriage after it.
- III 64. The daughter is feeble minded and has epileptic fits. She is married and lives in the
- b. 1860 neighborhood of the Rasp family. She has no children.
- III 66. The son is a feeble minded neurasthenic. He works on wood jobs or other day labor.
- b. 1870. His wife is a feeble minded slattern from another low-grade family. They have four children (b. 1906 to 1909) none of whom are normal. The oldest one is almost an idiot. He is five years old but does not talk, and none of the younger ones talk yet.

DESCRIPTION OF CHART C

The descendants from Neil Rasp's brother referred to on page 1, are plotted on Chart C together with the family into which they and persons on Chart A have married. As a whole, Chart C presents a class of high-grade feeble minded people who are simply shiftless and alcoholic. There is less criminality than on Chart A, but the men are town nuisances, drunken and disorderly.

- I 1. Nute Rasp was alcoholic and shiftless, but evidently more enterprising than Neil. He located about fifteen miles from his brother in a river valley where there were some manufacturing interests and a stone quarry. Nothing is known of his wife.
- II 1. Their son owned a small farm in the hills which may have belonged to old Nute. It is in the most unproductive part of the town. Little is known of him, but his wife still lives on the farm. She is a high-grade feeble-minded woman. They had eight children (III 1-14), one of whom died in childhood.
- III 1. One of them, a woodchopper, is very deaf. He drinks heavily and is subject to dizzy spells which sometimes interfere with his work. He has been imprisoned for various petty offenses and once for rape, but no case was proven. His wife is also feeble-minded and is from a notoriously low criminal family. She had several fainting spells of short duration. Their home is typical for such a family and is located a short distance from a trolley line. They have one boy who attends the country school near by. He is simple-minded and troublesome in school, the butt of the other children.
- III 4. Another brother, a teamster, married the sister of III 2, his brother's wife. Both husband and wife drank heavily and they soon separated. He then married an apparently normal woman. Their one daughter is neurotic. She dislikes school, and avoids going.
- III 7. The third brother lives five or six miles from the railroad on the outskirts of a small village. His home is poor but comfortable. He is a farm laborer, a good workman, who drinks moderately. His wife is a high-grade defective and has migraine, as did her mother and grandmother. Eight of her children (IV 3-17) are living, two died in infancy, and she had one miscarriage at eight months.
- IV 5. The oldest girl is quite feeble-minded. She was a house maid before her marriage and while so employed had one illegitimate child. She married a laborer from a family that is below par, and has two more children. Her home is a well-built tenement, but very dirty and ill-kept.
- III 8. The second daughter is a high-grade feeble-minded girl who is subject to hysterical fits. She has had one illegitimate child. Before the child was born she became so violent that she had to be confined in a room from which the furniture had been removed.
- III 9. The third girl is considered the brightest in the family. She has married the man who was probably her oldest sister's seducer, and lives in the nearby city.
- IV 11. The oldest boy is about twenty-two. He had spasms when he was young, and also scarlet fever and Bright's disease. He is now decidedly feeble-minded and alcoholic, and works very little.
- IV 13. Of the three youngest children who are in school, IV 13, the thirteen year old boy, is in the seventh grade and does fairly good work.
- IV 14. The twelve year old boy is in the sixth grade and finds it hard to learn.
- IV 15. The seven year old boy has been in the first grade two years and cannot count to ten. He is small and anemic; his mind wanders and his inattention is very marked.
- IV 17. The youngest child, six years old, is reported to have some kind of fits, but no definite information could be obtained.

III 9. This brother has left out-of-door employment which characterizes the Rasp family, and works in the night shift of a mill. He is dull and slow and a moderate drinker. His wife is brighter, but is subject to severe attacks of migraine. They have a small ill-kept home and a large family. Eleven children (IV 18-33) are living, three died in infancy and one was still-born. The living children are as follows:

The oldest boy works on the night shift with his father and appears normal. The oldest girl was obliged to marry a low alcoholic fellow. She is a high-grade feeble-minded woman; they have one child. The next three children work in the mill in the day-time, but none of them are well. One has dyspepsia, and a second one is extremely nervous, while the girl has a bad cough. One boy is nearly fourteen, so he will soon leave school and go to work in the mill; he appears normal, but his eyes are badly crossed. The three youngest children in school are well-behaved and orderly, but all take two years in a grade. Their slow progress seems to be due to a lack of mental ability, rather than to inattention or carelessness.

III 10. One sister of the third generation is a high-grade defective. She was a "wild" girl when young, but finally married an ordinary laborer and lives with her mother on the old farm. Her three children are under school age.

III 12. III 12 is a high-grade feeble-minded woman. She married an alcoholic man who is described with his children under III 24.

III 14. The next sister is very feeble-minded and lives in the same rickety house in the woods as III 27 of the Rasp family on Chart A. She is known to keep a house of ill-repute and increases these earnings by such work as cleaning out hen houses for the farmers. She has to support herself as her husband (III 15) is in the Insane Hospital. He is a brother of III 24, her sister's husband. They have two children, a girl and a boy.

IV 38. The girl is very feeble-minded. She became pregnant when eighteen years old, probably through her mother's influence. She was taken to the State Hospital and then committed to an Insane Hospital which was the only institution open for this class of women. The boy is working for a farmer some distance from his undesirable home, and is reported to be doing well. Nothing definite could be learned about his mentality.

III 15. The family to which the insane husband, III 15, belongs is one of three whose names are linked together as a byword for shiftlessness, drunkenness; and general troublesomeness in the town. Most of the members of this family are borderline cases so far as mentality is concerned. They can care for themselves after a fashion, but lack ambition and self control. Some of the members of the Rasp family (Chart A) married into this group.

I 4. The most remote ancestor obtainable in this family was very alcoholic. His wife was a high-grade feeble-minded woman. They had five children.

II 3. One was a notorious drunkard and very shiftless. He married a normal woman who was noted for her witticisms. He did nothing toward the support of his nine children, but his wife worked out by the day at housework. She was frankly glad to send him off to the war hoping he would never return, but he did. She worked very hard to keep her family together even after she was crippled with rheumatism. Her employers speak

with admiration of her remarkable devotion to her family, and pass lightly over the fact that she had one illegitimate colored child. She became insane late in life and died in the almshouse.

III 15. The son, who became insane, has been described above, as the consort of III 14.

III 17. A second son has moved out of the State. He does not drink, but is very shiftless and rattle-brained. He has been married three times, but nothing is known of his children.

III 18. A daughter married II 7 who had been her aunt's husband, a well known character for shiftlessness. Little is known of her as she died of tuberculosis some time ago, but her husband is still living with his son, IV 43, supported by his pension and State aid. He is a high-grade feeble-minded man, the half brother of II 7 on Chart A, the woman with a cleft palate. He drinks moderately. After III 18 died he married a woman from a degenerate family who is described as a "plain fool", and for a fourth wife he took a widow from another feeble-minded family. Of his four children by III 18 one, IV 44, died of diphtheria in childhood. The other three children are as follows:

IV 40. One son was characterized by a winking of the eyes which secured for him the name
b. 1872 of "a blinker". He was a devotee of hard cider and was arrested for making it illegally.
d. 1892. He finally died of tuberculosis shortly after his marriage to his mother's own cousin,
III 42. They had no children.

IV 41. Another son also died of tuberculosis. He was a miserable character, drunken and
b. 1876 shiftless. He married IV 33 on Chart A, a feeble-minded girl from the Rasp family.
d. 1907. Three of their children became State wards and are doing well in their new homes (see
page 38).

IV 43. The third boy is a misshapen, feeble-minded fellow. His deformities are probably
1878 due to rickets. He was also subject to epileptic fits in childhood. His home is an unplastered shanty near a prosperous town. He is a day laborer. His wife is a feeble-minded girl who comes from a degenerate family on The Hill where the Rasps live. They have one anemic, stupid-looking boy.

III 21. This woman has a character and lot in life similar to her mother. She has fair
b. 1868 intelligence, but married a worthless drunken man, her own cousin (see III 28).

III 22 & Two brothers were very alcoholic and shiftless. One of them fell across a stake on a
23. sled when drunk and choked to death. The other is still living.

III 24. This high-grade feeble-minded man is alcoholic and is afflicted with a nervous twitching of the muscles. He has been imprisoned for assault and drunkenness. Under the influence of a strong personality he reformed for a time, but when that influence was removed, he relapsed into his old habits. He has three children living and lost two in infancy. The oldest girl is thirteen and is in the eighth grade. She is very nervous and has poor mental ability. She is inclined to petty thieving. The eight year old boy is in the second grade and is doing fairly well.

III 25. Nothing is known of the last legitimate daughter who married and has two children.

III 27. The colored child went astray in some way and was sent to the Women's Reformatory, where she died two years later.

- II 6. Number 6 of the second generation is one of the worst drunkards on the chart. He is now dead, probably from delirium tremens.
- II 8. His sister who was the first wife of II 7 died from a tumor some time ago and little
b. 1840 is known of her. She had at least four children (III 28-32), three of whom have become
d. 1864. respectable citizens.
- The first is an alcoholic man who married his own cousin, III 21, and has two children. Their son is feeble-minded and alcoholic, working irregularly as a day laborer. Their daughter is a complete idiot and a great care, but her parents are unwilling to place her in any institution.
- III 29. III 29 is industrious and owns a house. He was divorced from his wife who was normal because of his cousin III 43 who was living with them. He did not marry her, however. Nothing is known of the children whom the mother took.
- III 31. This son was formerly very alcoholic, but with the assistance of church influences has reformed and is conducting a good business. He has a comfortable home and married one of the few normal women from the Rasp family (see Chart A, III 30).
- III 32. The fourth child married a normal man who holds a responsible town office. She is of average intelligence. Their one child died in infancy.
- II 9. One son of the second generation was killed in the war.
- II 12. Another son was a high-grade feeble-minded man, shiftless and untrustworthy. He
b. 1839 went to the war and his pension partly supports his widow. He received town aid at
d. 1909. different times and she now has occasional outside relief. Before her marriage she had one illegitimate son. One of her seven legitimate children died in infancy. An account of each follows.
- III 35. The oldest son is a fair workman, but somewhat shiftless. He is below the average
b. 1865. intelligence and drinks moderately. He married a lazy improvident woman who teaches her children to beg. She has nine children. They have frequently had town aid. When the whole family had had scarlet fever, they refused to be fumigated until forced to, and then took some clothes to the woods and hid them. Their oldest daughter is now married. She was "light-fingered" and untrustworthy. All the children are borderline cases of feeble-mindedness. A sister twelve years old is in the third grade and another eleven years old is in the first grade.
- III 37. III 37 is of fair intelligence. She was well trained in house work, but is careless and
b. 1870. shiftless when not watched. She has three children who are reported to be normal.
- III 38. Another daughter, who is a high-grade feeble-minded woman, married a man of the
b. 1873 same stamp from a branch of the Nuke family which is not included on Chart B. They live in a shiftless manner in a two-roomed unplastered house. They have two children. The oldest boy, a boy of thirteen, is in the third grade at school; is stupid and lazy. The girl, five years old, is just beginning school.
- III 41. A sister who died of tuberculosis was probably the same high-grade defective. She
b. 1875 married a brother of III 39, who is very deaf and is lazy and unintelligent. He is a day
d. 1911. laborer. After his wife's death, he took his five children to his father's home which was already overcrowded with shiftless, feeble-minded relatives. One son of thirteen is in

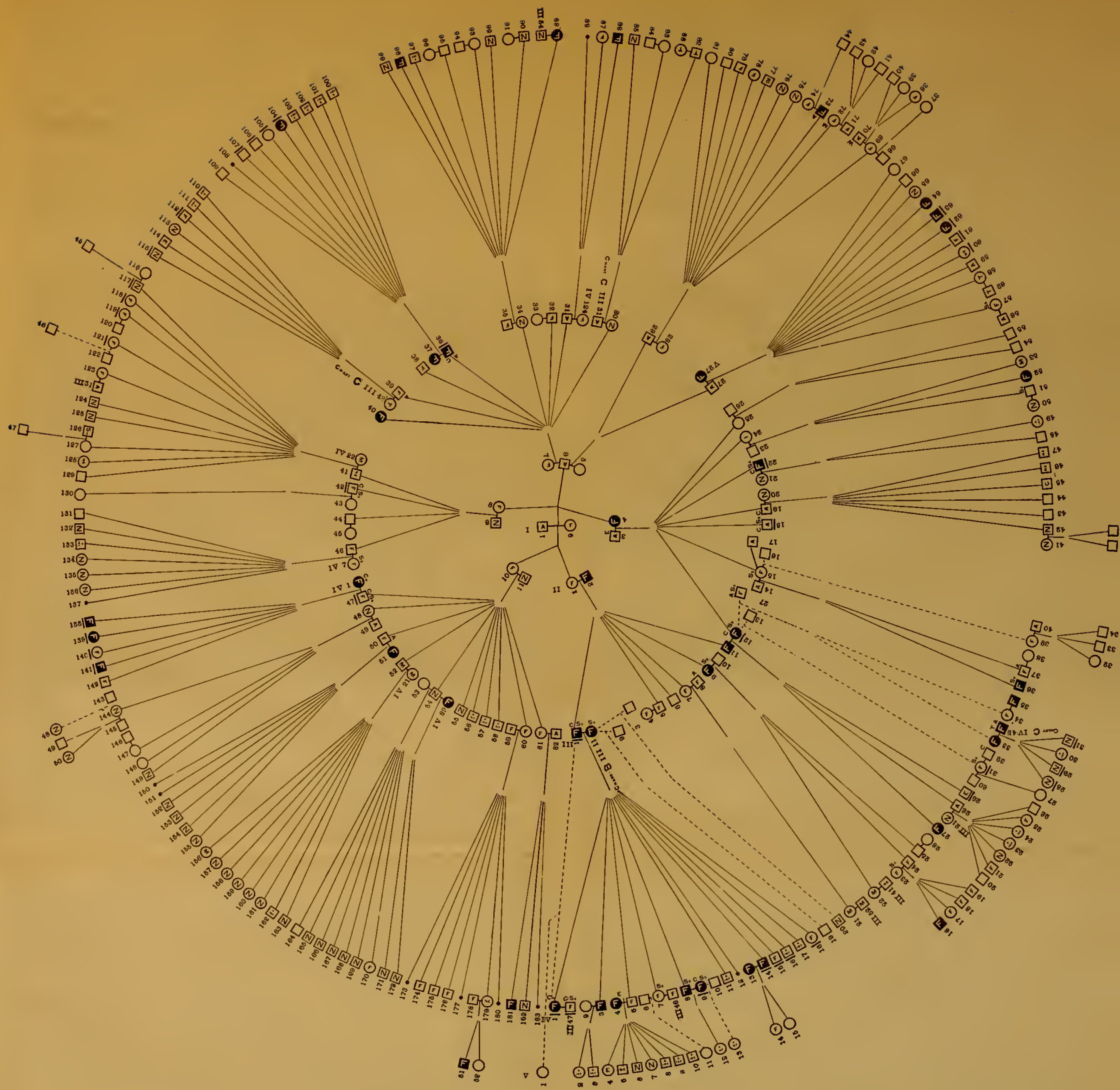
the third grade. He tries to learn but is mentally incapable of grasping his school work like a normal child. The sons of ten and eight years are still in the first grade. They are slow and dull.

III 42. This woman who married her cousin, IV 40, has been referred to before. After he b. 1877 died of tuberculosis, she married one of the Rasp family, III 39 on Chart A. Their four d. 1907. children are described on page 42.

III 43. III 43 is apparently normal. She has married an industrious workman and lives b. 1869 in a small town some distance from her old home. She has at least two children.

III 45. The youngest son is a teamster and is very alcoholic. He has been sent to the State b. 1880? Reformatory for repeated drunkenness. He married an Italian girl but soon left her.

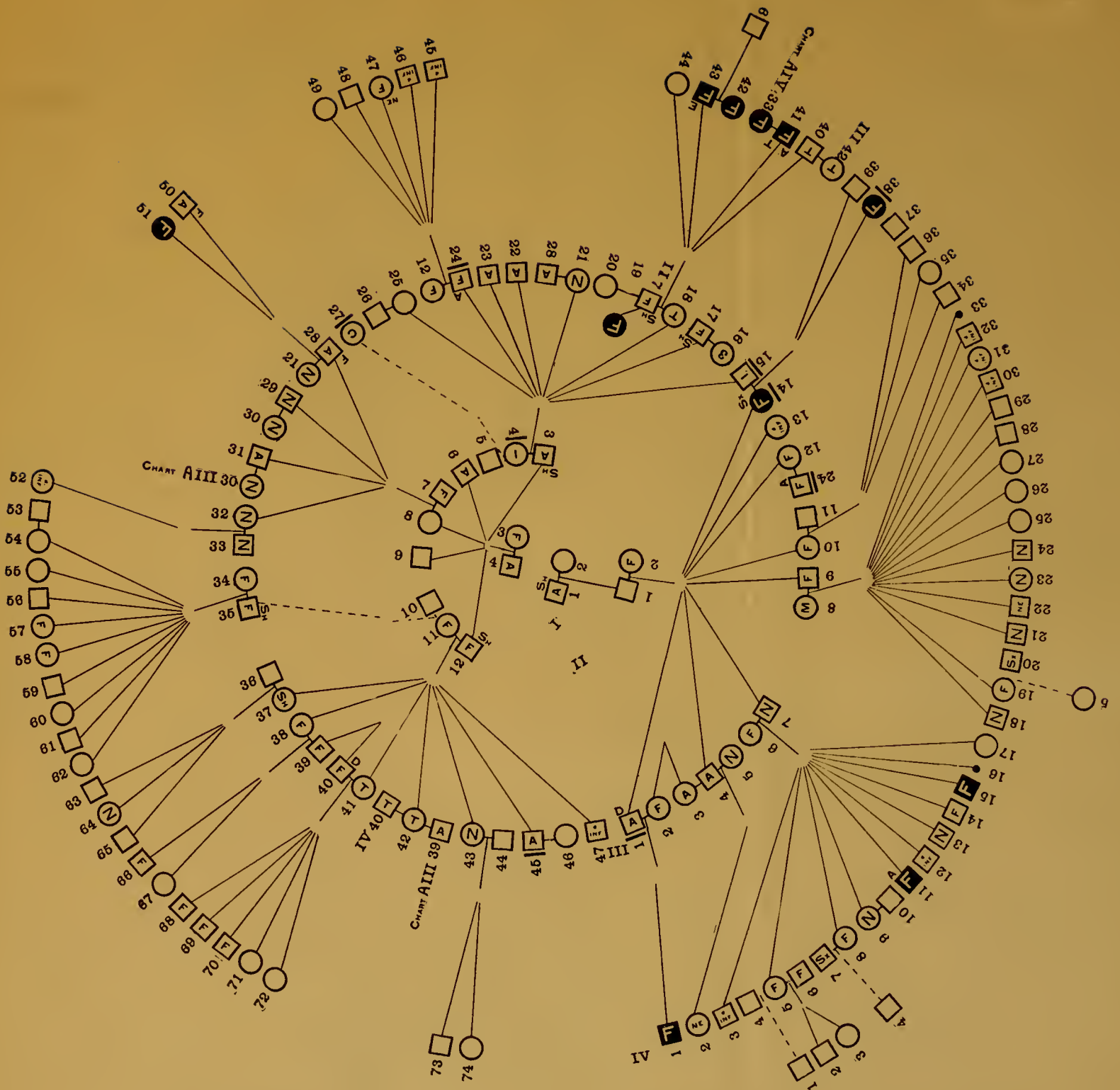
CHART A



47



CHART C



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Danielson, Florence Harris,
1886-

The Hill folk

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THE EUGENICS RECORD OFFICE

COLD SPRING HARBOR

LONG ISLAND, N. Y.

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The Eugenics Section and the Record Office which has been from its inception affiliated with it, are a development of the former committee on Eugenics which comprised well-known students of heredity and humanists; among others, Alexander Graham Bell, Washington, D. C.; Luther Burbank, Santa Rosa, Cal.; W. E. Castle, Harvard University; C. R. Henderson, University of Chicago; Adolf Meyer, Johns Hopkins Medical School; J. Arthur Thomson, University of Aberdeen; H. J. Webber, Cornell University; Frederick A. Woods, Boston. The first chairman of the Section was David Starr Jordan, Stanford University. The work of the Record Office is aided by the advice of a number of technical committees. Its superintendent is H. H. Laughlin, Cold Spring Harbor, N. Y., to whom correspondence should be addressed.

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